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Vol. LXX, No. 1

Section 1

July 1, 1938

1938 COTTON Detailed rules for marketing quota procedure affect—CROP QUOTAS ing the 1938 cotton crop were issued yesterday by the Department of Agriculture as a result of a referendum on March 12 in which 92 percent of voting cotton growers were said to have approved use of marketing quotas again this year. The regulations list the manner in which individual growers' quotas may be established, provide for appeals from quota rulings and set forth the manner of collection of penalties. Growers will receive marketing cards, on which their sales will be recerded, and production in excess of quotas, except where plantings yield more to the acre than normal, will be penalized at the rate of 2 cents a pound. (Press.)

CIVIL SERVICE

The Civil Service Commission yesterday began to gear PERSONNEL

its own machinery to take care of the added duties that will be imposed by President's orders revamping the executive civil service. The immediate task was to prepare for administration of one of the principal sections dealing with personnel reform, this being operative immediately instead of February 1 next, when the remaining provisions of the order are effective. The section in question directs the commission to "initiate, supervise and enforce a system as uniform as practicable for the recruitment, examination, certification, promotion from grade to grade, transfer and reinstatement of employees in the classified civil service except those specially exempted." It adds that the system "shall, so far as practicable, be competitive, with due regard to prior expérience and service." (Washington Star.)

COTTON:

A sharp advance in Liverpool in quotations for cotton,

PRICES both spot and future, together with the broadest trading

in the stock market since October, pushed prices on the

New York Cotton Exchange into new high territory in early dealings yes
terday. Contracts for the May delivery touched 9 cents before the market

ran into an increased supply of cotton, and later profit taking on the

advance of nearly \$6 a bale in June not only erased the improvement but

left quotations with losses of 3 to 5 points on the day. (New York Times.)

HIGHWAY

Highway construction contracts totaling more than

CONSTRUCTION \$25,000,000 boosted the awards for the current week in

that category to the highest point in five years, and are
largely responsible for a sharp rise of 22 percent in the total of all
engineering construction lettings over the corresponding period of 1937,
according to the Engineering News Record. (Press.)

W. H. Beal In June 30 Walter Henry Beal retired as a principal Retires experiment station administrator from the Office of Experiment Stations, terminating a continuous service of over the Office of Experiment Stations was established. Throughout the entire period he was in charge of the editorial supervision of most publications of the office, a member of the editorial staff of the Experiment Station Record and a contributor to many encyclopedias, yearbooks and other works of reference.

Farmingdale "In March 1938, a museum of early American farm imple—
Farm Museum ments and equipment was begun at the New York State Institute
at Farmingdale, Long Island," says the Rural New Yorker (July
2). "The number of people viewing the collections was so large and their
interest so active, the Institute authorities decided to begin a permanent
exhibit. Articles have been sent for exhibit from many parts of the Island.
A snap reel for measuring skeins of yarn has recently been received. In use
more than 100 years ago, it is stated that the measure established by this
ancient instrument with its hand-carved wooden goars is still the standard
length of skein. ." Other articles include a charcoal-heated flatiron
used about 1860, a charcoal foot-warming stove, a grain cradle, yarn winding reel, wheelwright's tools, farm steel yards, garden sceder, sausage
mill, corn and hay knives. Among the old farm implements may be seen an
early harrow, wooden beam one-horse cultivator and early steel plow.

"Bizometer" "Three hundred and fifty of the best farmers in all in Indiana Hoosierdom were gathered at the Florea farm in Fayette County during the Indiana Farm Management Tour to learn how Lee Florea, Purdue graduate of 1924, had fared on his Farm 'Bizometer', " says Irvin J. Mathews, in Successful Farming (July). "The Indiana Farm 'Bizometer' is a chart, a yardstick, by which any farmer may learn how he rates as a manager. Transcribe to the chart the results which are contained in any individual farm record book and you immediately have a measure of the farmer's financial ability with respect to the seven principal factors of management: (1) value of crops per tillable acre; (2) crop-yields index; (3) feed fed per tillable acre; (4) livestock efficiency index; (5) farm receipts per tillable acre; (6) operating expense per tillable acre; (7) the size of the farm in tillable acres. 'Lee has consistently maintained a lead way above average in six of these factors, said the announcer to the farmmanagers. For ten years now he has turned off an average of 353 fat hogs of his own raising each year. . . In 10 years on the farm, Lee Florea has become one of the most successful all-around live-stock farmers in the Midwest. He was awarded the much-coveted Wilkey Trophy in 1935 -- and to get this he had earned that very year two gold medals and one silver medal in the Hoosier Ton-Litter Club, two gold medals in the Gold-Medal Lamb Club and a gold medal and two silver medals in the 1,000-Pound Beef Calf Club. He is best known, however, as an expert pork-producer. From his farm records, the information was divulged that his average receipts from Woodbine Farm during the last seven years show 78 percent in the form of finished pork "

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Beef Cattle R. E. Davis, Georgia Extension Service, author of in South "Producing Beef Cattle in the South", in Southern Agriculturist (July) says: "A few years ago mention of this subject would have caused considerable adverse criticism but this is not true today. Among the agencies that are due credit for this are the 4-H Club, the Future Farmers of America Organization, the new farm program and the experiment station, each of which has had its part in bringing about a reversal of opinion on this subject of producing beef cattle in the South. Statistics show that a major portion of the beef products consumed in the southern states is imported from beyond the boundaries of these states. Soil conservation and balanced farming are highly important for the southern farm. Certainly the beef animal is eminently fitted to play its part in building up the soil. The feeds that conserve and build up the soil are the essential feeds for raising beef cattle. With the long growing season, the possibility for producing all types of feeds necessary for the beef animal and the low cost of housing facilities, there is every encouragement for the expansion of beef cattle in the South. Certainly, this expansion may be carried too fast. Two-thirds of the beef produced within the United States at present is produced west of the Mississippi River, while two-thirds of the beef consumed is east of the Mississippi River. The southernfarmer should keep in mind the fact that the drought in the mid-western states during the past few years brought. about a serious handicap in the beef-producing section and it is going to take time to regain the loss that has been made in these sections...."

Profitable Webb Waldron, in an article in the Country Home Magazine Farm Youth . (July) describes a high school in Stamping Ground, Kentucky, and an agricultural teacher, Ivan Jett. He says: "I have recently visited Jett and was amazed to find his thirty-eight farm boys making a clear profit of \$15,000 a year on farm projects conducted as an extra-curricular activity of their class in agriculture. I saw them building a clubhouse for their Future Farmers of America chapter, which, by the way, holds the nation's championship for achievement. I drank pure water from a modern water system which these boys built for their 400-population village, thereby eradicating typhoid. I saw the furnace they installed in their schoolhouse, and looked with wonder over the land and herds for miles around that are being improved through their work. I investigated a cooperative they started and own, and found it selling farmers 200,000 pounds of feed and 50 tons of fertilizer a year, saving them hundres of dollars in costs Today, that cooperative, run by Stamping Ground youth, has its own boy-made building and assets of \$1,000. Each year \$100 of its profits goes to the local chapter of the Future Farmers of America. The country around Stamping Ground is a different place now since Jett and his boys went into action for themselves and their community. Barns and houses are painted, yards neat and pleasant with shrubs, flowers and hedgerows. Broken fences have been restored and trash heaps hauled away "

"A difference of opinion has developed among our con-N.Y. FOREST servationists as to what the new State Constitution shall CONSERVATION say about the New York State's forest preserve, " says an editorial in the New York Times (June 30). "Several proposed amendments lay emphasis on 'scientific forestry.! One, at least, would permit 'the establishment of demonstration forests. Dean Samuel Spring of the State College of Forestry declared that 'the welfare of the forests is just as important as human lives, and both call for intelligent treatment. Professor Ralph H. King of the same institution pointed out that wild life sometimes had to be protected from Nature herself, presumably after man has upset the natural balance of growth and decay. Conservation Commissioner Lithgow Osborne did not see the proposals in the same light. He did not wish to have his department entrusted with the responsibility for 'scientific forestry. The forests as they are seemed to him well adapted for camping, fishing, hunting, winter sports and other outdoor activities in which the sportsman or vacationer is on his own... There is more danger in going too fast than in going too slow. We do not want 'scientific' forests on the European plan, in which trees are raised like cabbages and every dead twig is immediately picked up. We want enough scientific forestry to prevent forest fires and keep down blights, but not enough to destroy the sensation of wild nature which a great many civilized people crave and need. constitutional provision that our State-forest timber shall not be 'sold, removed or destroyed! should stand..."

Physics and The American Association for the Advancement of Science recently heard from two Nobel Prize winners what physics and Chemistry chemistry could be expected to do for mankind. Whereas Professor Arthur H. Compton of Chicago University brought the message that before man's present power sources failed he would be tapping new and inexhaustible sources of energy in the sun and stars, Professor Harold C. Urey of Columbia University declared: "Chemistry can and perhaps will destroy our European civilization. . . But a very different future of chemistry can be painted if people so desire. If chemistry is permitted to develop its energies to peaceful pursuits an abundance of goods valuable to man can be produced and in addition it can contribute to man's knowledge of the universe and his place in it. It will help to free him from superstition and error and will bring him intellectual pleasure." Professor Urey thought there was little doubt that much of the unrest of the civilized world for the last twenty-five years, resulting in revolutions, new systems of government and world-wide depressions, was closely related to the increase of productive capacity brought about by chemistry and the sister sciences. (New York Times.).

Study

Current market and providing flexibility to meet changing trade requirements, through partial integration, are the two essentials for success in any attempt at vertical integration in the textile industry, according to a study based on two years' investigation by the Industrial Research Department of the Wharton School of Finance and Commerce, University of Pennsylvania. The study was recommended by the United States Institute for Textile Research and made possible by a grant from the Textile Foundation. (New York Times)

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Vol. LXX, No. 2

Section 1

July 5, 1938

TRANSPORTATION The Department of Agriculture intends to inaugurate INVESTIGATION this week an investigation of freight rates charged by railroads and other transportation services, says an Associated Press report. Secretary of Agriculture Wallace has created a division of transportation in the department to conduct the investigation and ultimately to prosecute requests before the Interstate Commerce Commission for reductions in the rates on farm products. He acted under authority granted in the new crop control law. The survey will be directed by Dr. Ralph L. Dewey, recently chief of the division of transportation in the Bureau of the Census.

TRADE PACTS

Secretary Hull rebuked critics of his trade agree—
PROGRAM

ments program in a letter published Saturday. He declared that they would serve business and industry better by avoiding efforts to arouse "unwarranted and exaggerated fears" of damage from reduced tariffs. Mr. Hull's letter, addressed to Representative Treadway, of Massachusetts, said that there was no evidence of a "hasty and reckless disregard of the interests of the so-called tariff-sheltered industries" in negotiating trade treaties. He said that the government's policy of equal treatment "toward nations which do not discriminate against our commerce" was operating in the direction of world peace. (Associated Press.)

CIVIL SERVICE The Civil Service Commission has announced creation
DIVISIONS of a new division and shifts in personnel which will promote two members of the official staff. The set-up in the commission is being changed by splitting the Service Record and Retirement Division into two parts—a Retirement Division and a Service Record and Status Division. At the head of the Retirement Division will be Lewis H. Fisher, now chief of service records and retirement. Heading the new Service Record and Status Division will be Miss Vivian Carlson, now assistant to Mr. Fisher. The changes in machinery, it was said at the commission, were in view of the added duties to be imposed by President Roosevelt's reform program for civil service. (Washington Star.)

MAY FOREIGN

A downward trend in both exports and imports, includTRADE BALANCE ing many of the countries with which the United States
has reciprocal trade agreements, is disclosed in tables
showing the value of the foreign trade of the United States by countries
for May, made public by the Department of Commerce. (Press.)

The New York Times (June 30) in an editorial on cot-Cotton Picking ton picking machines, comments on the fear of unemploy-Machinery ment in the Cotton States, and says: "Fear on this score is dispelled by Charles A. Bennett, an expert of the Department of Agriculture, and E. A. Johnston, vice president of the International Harvester Company, in their addresses before the American Society of Agricultural Engineers...Mr. Bennett thinks that for the time being the inventors should limit themselves to the low grades. Mr. Johnston, who speaks with thirty years of experience behind him, half agrees, but holds that more than picking is involved. He wants new ginning processes, even new plants to be produced to meet the requirements of picking and ginning machines... The principles that must be applied are now so clear that there can be no doubt of ultimate success. Rising costs are the incentive. Once cotton pickers received 25 cents for a hundred pounds of cotton; now as much as a dollar and even more. Fully half of the market value of the raw cotton grown in the Mississippi Delta is picking cost. Suppose that the inventors have at last done their work and that the millions of laborers who are supported by the plantation have been gradually shifted to new occupations by a far-seeing industry and Government... With the price of cotton reduced by the picking machine and no animals to eat their heads off, the problem presented by the picker seems to be not so much one of finding work for the idle hands as one of finding new uses for cotton."

Pig Crop A sharp increase in hog production this year compared with last was forecast by the Department of Agri-Report culture in its regular report on the June pig crop. The spring pig crop was estimated by the Department to be 13 percent higher than the 1937 spring crop. Also the Department said that the number of sows to farrow this fall probably will be 9 percent larger than the number farrowed last year. Reports received thus far, the Department said, indicate that total farrowings for the year, including spring and fall, are indicated as 10 percent larger than last year. The number of pigs saved in the spring season of 1938, the Department said, is estimated at 43,384,000 head, which is 4,960,000 head, or 13 percent, larger than the number saved in the spring season last year. The Department said that this is the largest spring pig crop in the last five years, although it is much smaller than in any of the ten years preceding 1934. (Wall Street Journal.)

Productivity R. N. Cunningham, author of "What Is Wrong with the of Farmwoods Farmwoods?" in American Forests (July) says in part:

"There is reason to believe that current practices in the farmwoods are reducing their productivity in a large way and may lead eventually to permanent deforestation. Figures collected by the United States Census and by the Bureau of Agricultural Economics testify to the importance of woodlots on the American farm. The timber crop in 1929 was valued at \$242,042,000. Over two and one-half million farm families benefited from the sale or use of five billion feet of

sawlogs, fifteen million cross ties, thirty-four million cords of fuelwood, ninety-nine million fence posts, one and one-half million cords of pulpwood and three million poles. What the statistics fail to reveal is how much of this income represents current yield from productive forest land and how much is destructive liquidation of the woodland itself. If conditions in the Lake States are fairly representative of the country as a whole, a considerable proportion of current cutting and use is leading to deterioration of the forest land. Many of the original hardwood groves in southern Michigan, Wisconsin and Minnesota survived the early day lumbering activities. Then the search was mainly for white and Norway pine, and except where timber obstructed the plow, cutting in the farmwoods was moderate and not destructive. But now that the commercial pineries have gone, the farmwoods are beginning to suffer their heaviest losses. While the northwoods show signs of eventual, though slow recovery, many of the farm groves seem destined to permament destruction..."

Cotton Roads

"The cost of keeping up a mile of 'black-top' road in the South is figured by highway authorities at from \$250 a year in the South to \$400 or \$600 in the North," says an editorial in the Country Home Magazine "The money has to come out of taxpayers' pockets steadily or the roads go to pieces. Experiments indicate that such roads can be built with cotton membrane at an additional cost of only \$600. In two years, roughly, this can be paid for, and the taxpayers have a good road that will stand winter weather without frost boils and raveling. General use of cotton in secondary roads would tremendously help the South's cotton markets, make jobs in textile mills, save a lot of tax money and give us better rural roads."

Management lem in Successful Farming (July) says in part: "A firsthand view of this problem is provided by the recent discussions of 28 county agricultural conservation committees in Iowa reported by Rainer Schickele and Charles A. Norman of the Iowa Experiment
Station. Concerning business and professional men as landlords, this report says: 'In this group are some of the best and some of the poorest
landlords, in general, the farther away from the farm they live, the less
efficiently they perform their functions as landlords.' This group was
estimated as owning 14 percent of the tenant farms in the state. About
another group—widows and estates—the report states: 'Widows rarely are
efficient landlords; and estate farms operated by non-related tenants
who have no interest in the family estate are often very poorly managed..."

"Walking Horses" Breeders of "walking horses" have organized an asassociation so that the purity of the breed may be preserved and further improved. Plantation walking horses are not a new
discovery, but it is an advance step to provide for registration so that
animals with this gait may be produced with regularity and steady improvement.
(Southern Agriculturist, July.)

July 5, 1938

Canadian

About 8,000,000 acres of the prairie provinces have

Crop Report

prospects of a good wheat crop, in more than 11,000,000

acres the prospect is still fair and the balance of near
ly 5,000,000 acres can expect only a poor crop, the third 1938 crop re
port of the Winnipeg Free Press reveals. Present appearance of the crop

would justify a rather higher estimate, but so many reports indicate

that the wheat is going into July with only a slight reserve of moisture

that yields will depend to more than the usual extent on timely and abundant July rains. (Wall Street Journal.)

Foot-and-Mouth "Following up their studies on guinea pigs, Waldemann and Kobe (Berl. tierarztl. Wschr. 1938, 54, 317) have now Vaccination produced a vaccine against foot-and-mouth disease which they have tested on cattle under experimental conditions, " says The Lancet (London, June 18). "Virus is obtained by artificially infecting susceptible bovines through scarified mucous membrane... Nearly all the animals treated developed an immunity strong enough to enable them to resist large doses of virulent virus applied to scarified mucous membrane two weeks after immunization. In the subsequent experiments, after the composition of the vaccine had been satisfactorily stabilized, only three out of a batch of 90 animals tested for immunity in this way developed symptoms of the disease and these only mild ones. The actual process of vaccination did not give rise to infection in any of these animals, nor did any become carriers of infection either after the vaccination or after the experimental dose of virulent virus. On the other hand, the fact that out of 108 animals vaccinated during the course of still later experiments one did actually develop foot-and-mouth disease as a direct result of the vaccination throws a doubt upon the safety of the method... The vaccine is now being tested on some 40,000 cattle and the results will be published as soon as they are available..."

Southern The Southern Forest Experiment Station, E. L. Demmon, Director, has just released its sevent earnual re-Pulpwood port, covering activities of the calendar year 1937, stressing the role that the station may play in the future of the South in connection with the expanding pulp and paper industry, says a New Orleans report in the Dallas Morning News (June 22). The report shows that on January 1, 1938, in the ten Southern States from Virginia to Texas, there were in operation, or under construction, thirty-eight pulp mills, with a total reported capacity of about 10,000 tons of pulp per day and a total investment of approximately \$200,000,000. Since these mills will employ about 23,000 men in the mill, as well as 16,000 men in the woods, and have an annual payroll of at least \$25,000,000, it is obvious that this industry will mean much to the South, not only in increased income, but also in increased taxable wealth. These mills require annually, however, about five million standard cords of rough wood.

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Vol. LXX, No. 3

Section 1

July 6, 1938

LOANS ON Secretary Wallace of the Department of Agriculture WHEAT notified President Roosevelt at a White House conference yesterday that the size of this year's wheat crop would make mandatory a loan of at least 52 percent of parity at the time the loans are made. His conference was based on a forecast of an official wheat crop report to be issued next Monday. "It is obvious," Mr. Wallace said, "that when the federal estimates are put out on July 11 the size of the crop will be such as to make mandatory loans on wheat necessary. The mandatory loan as set forth in the 1938 agricultural act would be at least 52 percent of parity. At the present time parity is \$1.14 a bushel." (New York Times.)

PACKER'S

Swift & Company petitioned the Federal Circuit Court

of Appeals at Chicago yesterday to set aside a recent
order entered against it by Secretary Wallace on the ground
that Mr. Wallace had violated the Constitution, the Packers and Stockyards Act and the rules of practice governing hearings under the act.

Mr. Wallace issued a "cease and desist" order last month directing that
Swift refrain from what he called "unjustly discriminatory" credit, discount and weight practices. These alleged unlawful practices took place
in New York. (New York Times.)

TRI-PARTITE

A Tokyo report by the Associated Press says Japan,
TRADE PACT

Italy and Manchukuo yesterday signed a trade treaty entitled "An accord among the Governments of Italy, Japan
and Manchukuo for regulating trade and payments thereto between Italy on
one side and Japan and Manchukuo on the other." Observers considered it
significant that Japan and Manchukuo, created by Japan out of Manchurian
provinces wrested from China in 1931-1933, were linked as one party to
the treaty. Hitherto Japan has insisted that Manchukuo was independent.

WHEAT

Enormous arrivals of new wheat, with Kansas City's total the largest ever received at any American market, helped plunge prices down about 3 cents yesterday, says a press report from Chicago. Contributing to the tumble was 3,082,000 bushels increase of the United States visible supply total, together with rains beneficial for spring crops both north and south of the Canadian boundary. Presistant dearth of any significant North American wheat export business acted also as a weight on values.

Section 2

"A complete volume of the beautifully illustrated Botanical botanical periodical, Curtis's Botanical Magazine (avail-Magazine able in the U.S.D.A. Library) has recently been published in one cover, " says Nature (London, June 18). "This is to fill a gap in the series created by the non-appearance of a volume in 1921. At the end of 1920, publication of the magazine ceased, and it seemed possible that the copyright would pass to an owner in the United States; but in 1921, the Royal Horticultural Society was presented with the copyright through the generosity of subscribers. The gap thus created in the series has now been filled ... Fifty-seven plants are described and beautifully illustrated, including eleven species of Rhododendron, fifteen of Primula and four of Gentiana. Plants from all parts of the world are described in the magazine, but in this volume Chinese plants-take pride of place..."

Air-Cooled

Air cooling of laying houses will be tried this summer at the University of California, to ascertain whether Houses

comfort of hens during the hot summer months will lead to higher egg production. V. S. Asmundson, assistant professor of poultry husbandry, and J. R. Tavernetti, assistant agricultural engineer, have outlined an experiment to find whether hens can be induced to lay more eggs by reducing the temperature during the hot weather. An evaporator cooler with an electric fan will be used to bring fresh, cool air into the poultry house. This equipment, similar to that being installed in homes throughout the southern portion of the valley, will be low in cost and effective to a degree that the experimenters believe will have an effect on egg production. (Nulaid News, June.)

Frozen Food Ivan C. Miller, distribution editor, Food Industries, Transportation writes in the July issue on "Transporting Frozen Foods". He says in the concluding paragraphs: "One of the few problems of frozen food transportation is the shipment of samples in less than carload lots, small lot shipments to institutions well-removed from regular distribution channels, and drop shipments on long hauls. Another problem, minor at present, will be important as frozen foods are imported and exported in and out of the country by water. This problem arises from the necessity of maintaining temperature on unrefrigerated lighters, operating between dock and ship holds, and in many cases in maintaining temperature in transit from one country to another by boat. Shipping containers for transporting less than carload lots of frozen foods are, however, available. Among these is an insulated container which maintains reduced temperatures either with solid carbon dioxide or mechanical refrigeration equipment. Temperature is thermostatically controlled to a variation of between 2 and 3 deg. F. Capacities vary from 500 to 3,000 lbs. of frozen food per container. This type of container is used for less than carload shipments by express, by truck for drop shipments over long hauls, for lighter service, between boat and warehouse, and on board vessels without low temperature holding rooms. This type of container has been successfully used to transport frozen halibut liver from Norway to

Rochester, frozen pineapple from Puerto Rico to New York City, assorted frozen foods from New York City by boat to New Orleans, frozen shrimp from New Orleans to New York, and from New York to Chicago, frozen strawberries from Jacksonville, Fla., to New York, frozen fruits from St.Louis to New York, frozen vegetables from Dyersville, Tenn., to New York and Chicago. When solid carbon dioxide is used to maintain temperature in this type container, 2 to 3 lbs.of solid carbon dioxide are consumed per ton-hour to maintain a temperature below 10 deg. F."

Straw Buncher Something long needed is now available in a straw for Combines buncher developed by a manufacturing company in the Midwest.

Hitched behind a combine, it gets both the straw, chaff and light grain that goes over, or in soy beans, the pods, much increasing the feeding value. Where a pick-up baler is used to salvage the straw, the piles from the buncher can be easily windrowed with a little practice. The buncher is mounted on a simple two-wheeled chassis equipped with either steel or rubber tired wheels. The straw and chaff mix thoroughly as they fall onto the bed and build up into a cone-shaped bunch. When the operator pulls the rope, the bed tilts and the straw bunch slides off onto the ground, the bed automatically returning to level position and latching tight. Since the buncher bed is low placed, it cannot interfere with the wind blast, as is sometimes the case with straw platforms built onto combines. Attachments are available for hitching the buncher to various model combines. (Farm Implement News, June 30.)

Scientific Gleanings in Bee Culture (July) in an editorial on Bee Journal scientific bee journals, says in part: "We have such a publication in English, entitled, 'The Bee World', edited by Annie D. Betts for the Apis Club, The Way's End Fonton, Royston, Herts, England. Miss Betts reads some eight different languages and is able to pick out two more with the help of a dictionary. Scientific contributions, gathered from over the entire world, are given in brief in The Bee World and in such terms as the average English reader can understand. Not only does she cover the science of beekeeping, but also of the practical side in a brief form so that any one can understand. Some of Miss Betts' best work will appear in the next edition of A B C and X Y Z of Bee Culture that will be available to the public along about September, 1939."

Muskrat

How muskrats build their houses and elaborate canals

Study

and tunnels in marshes and obtain their food are explained
in Circular 474, Muskrat Investigations in Dorchester County,

Maryland, just published by the Department. Each year thousands of muskrats are trapped for their fur, but information on their life history and
habits has been limited. Investigations were conducted by the State Conservation Commission, the Maryland Experiment Station, and the Bureau of
Biological Survey. Further studies are being made by the Survey at a newly established fur animal field station at the Blackwater Migratory Bird

Refuge, near Cambridge, Md.

The American Bee Journal (July) contains a revision Distribution of Honey of a talk by Harold J. Clay, Bureau of Agricultural Economics, on "The Distribution of Honey from a National Standpoint". He says in part: "Not many years ago the iron horse transported most of the honey that wasn't carried by horse and buggy, though the movement in carload lots has been more prevalent since the World War. Now gasoline buggies, ranging from passenger cars to mammoth trucks, are the chief means for carrying honey from the beekeeper to his market. Honey goes by truck from southern California to Seattle, from Idaho to Los Angeles, and from Sioux City to the eastern seaboard. Truck lines have become one of the most important means of distributing honey. Many beekeepers have established regular truck routes, covering at times hundreds of miles and with definite circuits over which the truck passes every few months. This method of distribution is especially in evidence west of the Mississippi, where numerous commercial beekeepers dispose of their entire crop in this way. Drivers on truck routes report that selling a 60-pound can of honey to a farmer with a large family is often no more difficult than selling a 10-pound pail to a family in the city and that repeat orders are about as frequent. Men having truck routes often purchase honey from beekeepers on their trips to supplement their own crops, and many western beckeepers sell all their honey to truckers at their door as the easiest way of getting rid of their crops. Yet the movement of honey by boat cannot be ignored. Even though exports of honey have fallen off sharply the boat is still important not only for coastwise transportation, as from Florida to New York City, but also in the movement of honey from the Far West to the East Coast."

Our Land L. C. Gray, Bureau of Agricultural Economics, writing Policy on "Our Land Policy Today" in The Cattleman (July) says in the concluding paragraph: "The idea of securing conservative use of privately owned lands marks a change in our traditional concepts of land tenure. In the course of development of American economic institutions during the late eighteenth century, an allodial system of ownership in a fee simple absolute grew up that removed all restraint upon the landowner as to the manner in which he utilized his land. Results of more than a century of exploitation and waste have emphasized that such a concept of land ownership is no longer valid if we are to protect either the welfare of the Nation as a whole, which depends upon a wise use of its land resources, or the interests of future generations. We are forced to recognize the existence of a social interest in the private ownership of land and to protect that interest where a recalcitrant individual owner fails to do so."

Scientific Scientific management, if properly applied and based Management on sound principles, would result in increased output, lower production costs and increased profits and earnings to employers and workers, Joseph W. Roe, visiting Professor of Management at Yale and New York Universities, declared recently in urging its application to all lines of business. Scientific management is being accepted more and more by management and labor, he said, and its weakness, so far, has been chiefly in the manner and method of application, but he warned against "making changes too rapidly and too drastically."

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Vol. LXX, No. 4

Section 1

July 7, 1938

POPULATION The National Resources Committee predicts "chronic DISTRIBUTION poverty and cultural stagnation for millions of people" because of an unbalanced distribution of population. In a report to President Roosevelt, the committee recommended encouragement of freer movement of workers from agricultural areas of limited opportunity. It said the most critical overpopulation problems could be expected in some farming, mining and forest areas. In the Southeast, the most conspicuous example of rural overpopulation, the net annual value of agricultural products per worker in the 1924-1923 period was \$672, or less than one-third of the value of the products in the Northwest and about half the national average. (Associated Press.)

FARM MACHINERY

Reporting to Congress yesterday on a two-year invesINVESTIGATION tigation of the farm machinery industry, the Federal

Trade Commission concluded that the evidence "indicates
the existence of serious monopolistic conditions." Made in compliance
with the Bulwinkle resolution approved by President Roosevelt June 24,
1936, and signed by Chairman Garland S. Ferguson of the FTC, the report
traces the development of the farm machinery industry since 1914. The
report states that from four to six companies "dominate the manufacture
and sale in the United States" of leading farm implements and equipment.
(Washington Post.)

EASTERN

The Interstate Commerce Commission, which in April R.R. FARES

denied an application by the eastern railroads for an increase in passenger coach fares from 2 to 2.5 cents a mile, yesterday reversed its findings and granted permission to make the increase for an eighteen-month "experimental" period. The rise will take effect on ten days' notice to the commission and the public. The railroads estimated at the original hearing that the increase would add about \$30,000,000 annually to their revenues on the basis of 1936 traffic. The new rate applies only to passenger coaches and not to sleeping cars. (Press.)

WORLD TRADE Crown Prince Gustaf Adolf of Sweden yesterday hailed

BARRIERS the trade relations between his country and America and
pointed out that work for sound commercial intercourse was
work for peace. He said in part: "We are all agreed, I think, of the
primordial importance of abolishing, wherever it may be possible, the
barriers which hamper the free flow of international trade." (New York Times.)

Modern Plant "Modern Plant 'Wizardry'" is the title of an article by Keith C. Barrons, in Scientific American (July). He Breeding says in part: "Modern plant breeding work as conducted by the state and federal experiment stations is not a 'lone-wolf' affair. Men with diversified technical and scientific specialties often cooperate on one breeding problem. The improved variety which results cannot be called the production of one man, sometimes not even of one institution. For example, let us look at Thatcher wheat, a new variety from the Minnesota Experiment Station which combines excellent milling and baking quality with high yield and remarkable resistance to the dreaded black stem rust. Thatcher is truly a monument to scientific cooperation. It is the product of years of cumulative effort on the part of specialists" in the field of breeding, in plant pathology and in cereal chemistry to produce a highly rust-resistant variety, the grain of which would make flour to suit the most exacting baker and the most fastidious housewife. The breeders did the hybridizing and selecting necessary to the production of a new variety, but working alone they could never have accomplished the results that have been realized. Milling and baking specialists made thousands of tests of grain from different strains... The plant pathologist had to develop a method of creating an artificial epidemic of the rust disease so the selections could be tested for resistance... Thatcher is the result of thirty years of uninterrupted effort. Even after the state and federal experimenters had passed final judgment on this new variety and after millers in Minneapolis had said, 'It's O.K.' the job was not finished. The agricultural extension people, the farm organizations and the farm magazines had to tell the grower about Thatcher, tell him what it would not do in certain localities. It was their job to put Thatcher across to the farmer. It was up to the seedsmen to grow and distribute this new variety in the same pure form in which it was first released by the experimenters. Indeed, the successful plant breeder today must first of all be a good cooperator." (This is the second of two articles by Mr. Barrons; the first was "Streamlined Plants" in the March issue.)

Farmers! "... In the farm papers, state and national bulletins Reading and from other sources, there are so many helpful suggestions about what to do and how to do it, that any farmer can profitably take time to do more reading," says an editorial in Utah Farmer (June 28). "An hour with some of the bulletins may unearth an idea worth a hundred dollars a year to your farm. Why take a chance on missing some money making plan? One of the greatest values of reading comes from the fact that it starts the reader to do his own thinking. It you think, plan and read more, we are sure there will be a better credit balance at your harvest time. Make a list of the things you are most interested in, then write the experiment stations, or the U.S. Department of Agriculture, and ask for information that will help you. But above all, don't be too busy to read. It is a mark of distinction to be well informed."

Civil Service The Civil Service Commission announces the followExaminations ing examinations: unassembled, junior script engraver,
\$11.52 per diem, \$2.16 per hour overtime (\$3,000 per
annum), for appointment in Washington, D.C., only, Bureau of Engraving
and Printing, Treasury Department; assembled, assistant messenger,
\$1,080 a year, for appointment in Washington, D.C., only. Applications
must be on file not later than: (a) for script engraver, August 1, for
messenger, July 19, if received from states other than those named in (b);

'b) for script engraver, August 4, for messenger, July 22, if received
from the following states: Arizona, California, Colorado, Idaho,
Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

B. T. Galloway Dr. A. F. Woods contributes to Science (July 1) an obituary of the late Beverly Thomas Galloway, Bureau of Plant Industry. He says: "For practically half a century the name of B. T. Galloway (as he always signed it) has been identified with the development of botany and agriculture, most of that time with the U.S. Department of Agriculture... In 1887 he was appointed to the Section of mycology in the Department...and in 1888 he was appointed head. The work on the nature, cause and control of plant diseases was developed rapidly. David Fairchild, Erwin Smith, Effie Southworth, Nellie Fealy, Newton B. Pierce, M. B. Waite, Walter Swingle, H. J. Webber, Theodore Holm, P. H. Dorsett, assisted in the work. The writer came into the group in 1893. It was a delightful association and a happy family of workers. Salaries were small and funds were scarce, but enthusiasm was high...In 1900, Secretary Wilson appointed Doctor Galloway chief of the Division of Gardens and Grounds. During the first year of Secretary Houston's administration, Doctor Galloway was Assistant Secretary of Agriculture... In 1913-14, he was selected as a dean of the New York State College of Agriculture, Cornell University. He returned to the Department in 1915 to give special attention to pathological problems in connection with seed and plant introduction. Doctor Galleway has written on a wide range of subjects connected with botany and agriculture. He retired from government service in 1933, but continued his interests in the work until the day of his death. He was actively engaged in a study of plants connected with hay fever and in organizing research in this field which will bear fruit in years to come..."

Prefabricated Although not the immediate solution, prefabricated House Study houses were seen as the logical solution to the vital problem of low-cost housing in America by more than 250 lumber dealers, architects, contractors and others at a meeting of the U.S. Forest Products Club recently, says a Madison report in American Lumberman (July 2). "Until prefabricated houses can be manufactured on a mass production basis, similar to that of the automotive and radio industries," said L. J. Markwardt, senior engineer, Forest Products Laboratory, "they are not the immediate solution to low-cost housing problems. In the meantime, however, building contractors in larger cities are developing a semi-mass production principle by utilizing a progression of specialized work groups in large scale construction of home units."

"The Department of Commerce describes its report on May Imports and Exports the country's foreign trade in May as reflecting 'the slowing-up in foreign demand for United States merchandise, which has been in evidence for several months," says an editorial in the New York Times (July 3). "This would be no surprising result, in view of the moderate trade reaction abroad. All of the decrease in our exports as compared with May, 1937, occurred in raw materials and in partly or wholly finished manufactures. But taken as a whole and except for 1937, our export trade, in May and in the five first months of 1938, was the largest since 1930 and, with the much smaller import trade, excess of exports for both periods was without exception the largest since 1921.... In one respect, the export and import figures are distinctly reassuring. The department remarks that agricultural exports from the United States in May increased 33 per cent over 1937, while agricultural imports decreased 55 per cent. The comparison might have been extended. During the fivemonth period in 1937, because of a short harvest and high prices, our export of grain almost disappeared; of wheat we actually imported 6,100,000 bushels more than we sent abroad. In the same months this year the United States has exported 43, 275,000 bushels, much the largest outward movement for the corresponding months in more than ten years. So large an outgo will not only cut down the unsold surplus from our abnormally large wheat crop of 1938, but will go some distance toward regaining our wheat-export trade, virtually lost in the past dacade."

Blanching M. A. Joslyn and G. L. Marsh, University of California, authors of "Blanching Vegetables for Freezing Preservation" Vegetables in Food Industries (July) says "Blanching or scalding prior for Freezing to packing, followed by rapid cooling of vegetables, is now well established as an essential practice in the preparation of vegetables for preservation by freezing. With but few exceptions, all vegetables are now scalded, in boiling water or in steam, then cooled in running cold water before freezing. It is recognized by all investigators in this field that scalding is necessary to inactivate certain enzymes which would otherwise bring about deleterious changes in aroma and flavor; scalding also tends to brighten the color of the vegetable and minimize the changes in color on subsequent cooking. In addition to inactivating certain enzymes, scalding is used to aid in the removal of undesirable matter, and to prepare the vegetable for packaging by forcing out air, and also causing a loss of turgidity. This is also the practice in preparing vegetables for canning. The scalding of vegetables for freezing differs, however, in several essentials from scalding for canning. Prompt cooling or chilling of the vegetables to be frozen is an essential practice in freezing, whereas in canning practice this is not desirable, particularly in leafy vegetables such as spinach. Here, any heat loss is avoided as much as possible for the sake of subsequent heat processing. Furthermore, the period of scalding is somewhat shorter for some vegetables and considerably longer for others..."

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Vol. LXX, No. 5

Section 1

July 8, 1933

PUBLIC AFFAIRS

Many forces are tending to strengthen the north-south
INSTITUTE

axis between the Americas, Dr. Alexander V. Dye, director
of the Bureau of Foreign and Domestic Commerce of the
Department of Commerce, told the University of Virginia Institute of Public Affairs yesterday, according to an Associated Press report from Charlottesville, Virginia. Trade between the United States and Latin America
may be expected to show a steady increase as those countries advance along
the path of greater national industrialization, despite strong competition
from Germany, Japan and other nations, Dr. Dye said. International economics and commerce dominated the discussions of the morning.

FARM MORTGAGES Private investors placed \$653,265,000 in farm mortgages INCREASE in the year ended on April 1, indicating that this was a favorite field for investment, the Farm Credit Administration reported yesterday. W. I. Myers, governor of the FCA, said that total farm financing in the period, including federal land bank credits, aggregated \$749,355,000. While the amount of mortgages written by individuals and commercial banks declined slightly during the first three months of this year, compared with the first quarter of 1937, Mr. Myers said, the amount written by insurance companies continued to increase; being 15 percent above the 1937 level, and more than three times as high as in 1934. Farm mortgages reported by all creditors during the first quarter of the year aggregated \$214,789,000, of which \$189,296,000 was written by private lenders. (Press.)

CANADIAN

Good growth and the absence of any major setbacks conCROP REPORT

tinue to characterize the progress of crops in Canada, according to the Bank of Montreal in its current crop report.

The wheat crop in the Prairie Provinces has been aided by well distributed rains, the bank states, and, on the whole, is making good progress under favorable growing conditions. In Quebec the bank reports that all crops are showing satisfactory growth, while in Ontario crop prospects generally are excellent. In the Maritime Provinces grains are progressing satisfactorily, but in British Columbia dry weather has resulted in below average yields of early hay and potatoes. (Press.)

MONOPOLIES

A program of action up to the point of public hearings was unanimously agreed upon yesterday by the joint Congressional-Executive committee to investigate monopoly and the concentration of economic power. Senator O'Mahoney, the chairman, said the inquiry was not to be a punitive one. (New York Times.)

"Baby" Combine

The small combined harvester-threshers — the soHarvesters

called "baby" combines — cut a swath of 5 or 6 feet, have
a power take-off, and are mounted on pneumatic tires. The
Bureau of Agricultural Engineering, in cooperation with the Ohio and
Mississippi Experiment Stations and the Agricultural Engineering Departments of the University of Illinois and Purdue University, recently concluded tests of the efficiencies of these small combines in comparison
with 8-foot and larger machines. The results are available in Circular
470 — "Performance Characteristics of 5 and 6-foot Combines". The tests
were conducted with wheat, oats, and soybeams and indicate that the small
combines are just as efficient as the large combines and may be pulled at
speeds of from a half mile to a mile faster than the larger sizes. Some
small machines operated satisfactor at 5 miles per hour.

"Forest "In the days when forests covered a far larger part of Sense" Britain than they do now, it is probable that most persons had some knowledge of trees and woods, or forest sense, as the Royal English Forestry Society puts it, " says Wood (London, June). "The Forestry Commission will be helping to revive this sense by its decision to create Forest Parks in those parts of its reservations where there is no actual tree planting going on. A beginning has been made in the Commission's Ardgartan estate in Argyllshire, and it is proposed to create similar Forest Parks in the regions of Snowdonia and the Forest of Dean. The Commons and Footpaths Preservation Society is represented on the Committee concerned with the project. The Forestry Commission realizes that even in ancient forest tracts modern modes of living must be borne in mind; it is therefore willing to allow sites to be reserved for car parks and for hikers! hostels. . "

Oklahoma Crop A state-wide cooperative movement to improve the Improvement state's wheat crop has been inaugurated by the Oklahoma A. and M. College, which will establish eighteen wheat plots over the state, says an Oklahoma City report in the Northwestern Miller (June 29). Announcement of the program was made by Dr. Lippert S. Ellis, acting dean of agriculture of the college, who has already made substantial progress in seed improvement. "Oklahoma farmers lost hundreds of thousands of dollars last year and the years before because their wheat was mixed with other varieties or other grains when brought to the elevators, " Dr. Ellis said. "This was true because many of them did not know their wheat was mixed until it was docked by the elevators. In the experimental program, this situation will be aided by enabling the farmers to see in the nurseries their seed growing side by side with pure seed selections of the same varieties." He added that another improvement hoped for would be elimination of so many different wheat varieties. The Oklahoma Millers Association, the Oklahoma Grain and Feed Dealers Association, the Oklahoma Crop Improvement Association, the Union Equity Cooperative Exchange and the Oklahoma Bankers Association are cooperating in the experiment program.

The Weather Bureau, for the twelfth consecutive year, __ International has joined meteorological services of other nations in an Weather Month "international month" for simultaneous exploration of the upper air. Daily upper-air observations through July at a place selected in each country - Omaha, Neb., in the United States - give a detailed picture of the changes in the weather from the equator to the poles that can be obtained in no other way, according to Dr. Gregg, Chief of the Weather Bureau. The assembled weather facts are compiled by each national meteorological service and sent for publication to the President of the International Aerological Commission in Berlin, Germany. The published data are used in studying methods for improving forecasting. Upper-air observations for the international month are made by automatic weather recorders - meteorographs - carried 10 to 12 miles above the earth by hydrogen-filled balloons, with a red silk parachute attached to break the instrument's fall when the balloon bursts. The red parachute also serves to attract attention to the fallen instrument. The Weather Bureau pays three dollars for the return of each instrument, as directed on a printed tag attached to the basket holding the instrument. Most of the meteorographs released this month at Omaha are expected to come down in Iowa.

Vitamin A Poultry Science (July) contains a report by W. E. for Poultry Poley, Experiment Station, Purdue University, on alfalfa leaf meal as a Vitamin A supplement for ground wheat in poultry feed. His conclusions are: "Wheat, which is too finely ground (modulus number 1.74) and used to the amount of 75 percent in certain types of rations, results in pressure necrosis, beak malformation, retarded development or death; at least 3 percent of a good grade of alfalfa meal was necessary to supplement the vitamin A deficiency of a basal ration containing ground wheat, meat and bone scraps, and dried skimmilk; definite vitamin A deficiency disease symptoms resulted when 1 percent of alfalfa leaf meal was used to supplement a ration composed of 67 percent of ground wheat."

U. S. Woods The London County Council, with approval of the British Recognized Ministry of Health, in its new building by-laws for framing lumber used in Greater London, has assigned greater working stresses to graded Douglas fir and longleaf pine than to European softwood, says a Washington report in Southern Lumberman (July 1). These changes will assist these two American species in competing with European lumber, and with materials other than wood. Using extreme fibre stress in bending as descriptive base, the Council has set 800 pounds per square inch for the "Nongraded" European softwoods. Douglas fir and longleaf pine the Council designate as "graded timber" and for these species provides grading rules for "Grade 1,200 lb. f." timber. Proven strength values for the commercial grades of American woods have been established by tests at the Forest Products Laboratory of the U. S. Forest Service, whereas there are European test data on only selected samples but as yet no established commercial grades on which to make conclusive tests. European lumber is generally sold unsorted or ungraded.

Fruits and Vegetables For Freezing

H. H. Plagge, Iowa Experiment Station, in Ice and Refrigeration (July) discusses freezing and storing fruits and vegetables in refrigerated locker plants. He says in part: "Strawberries, red raspberries, black raspberries, loganberries and red pitted cherries are frozen commercially in volumes large enough to be measured in millions of pounds. Other fruits that are frozen commercially, but in lesser quantities, include currants, sweet cherries, youngberries, plums, gooseberries, prunes, apricots, peaches, blueberries, grapes and apples. Other fruits and fruit products that are regarded as being suitable for freezing include cranberries, figs, cider and the juices of the cherry, rhubarb, pineapple, current, raspberry and blackberry. Of these fruits the strawberry, raspberry, red pitted cherry, apple, plum, current, gooseberry and grape are commonly grown in Iowa. The list of vegetables for freezing purposes is of similar length and comprises peas, asparagus, sweet corn, snap beans, lima beans, spinach, broccoli, mushrooms, Swiss chard, kale, beets, artichokes, squash, carrots, cauliflower, Brussels sprouts, other greens, new potatoes, rhubarb and succotash. These vegetables are not all important commercially, but the list will serve to indicate what kinds of vegetables are suitable for freezing preparation. Some of the important vegetables are not adapted for freezing, and these include tomatoes, lettuce, celery, cabbage, cucumbers, onions and radishes. While these vegetables are now regarded

as unsuitable for freezing, it is possible that new methods may be discovered that will make it practicable to freeze them. Peas, corn, snap beans, lima beans, spinach, broccoli and asparagus are some of the most important vegetables preserved by freezing, and all of these are commonly grown in the central states. Sweet corn is an important canning crop in Iowa and may be frozen on the cob or as whole grain. Frozen succotash is

a mixture of sweet corn and lima beans or sweet corn and snap beans."

Conservation "At a meeting of the Los Angeles Chamber of Commerce of Soils recently, Dr. H. H. Bennett, Chief of the Soil Conservation Service of the U. S. Department of Agriculture, made some rather startling statements regarding the rapid loss of our soils due to water and wind erosion, " says an editorial in California Cultivator (July 2). "Having been interested in this work for a great many years and an early advocate of soil conservation, he has perhaps given more attention to the subject than almost any other person. For more than thirty years he has watched the disastrous effect of water erosion in the southern states where share-crop farming largely prevails and no one seems interested in retaining the fertility of the soil. He cited numerous instances where practically whole counties that thirty years ago were rich farming areas, are now so badly eroded as to be beyond repair. In the Middle West wind is doing much the same devastating erosion work. At last, he stated, farmers are beginning to realize the importance of soil conservation work and are cooperating fully with the department in trying to check erosion before it ruins the nation. . He urged everyone to visit the soil conservation work being carried on under the auspices of the United States Government and asked for greater cooperation of both rural and urban people to the end that the government might, at least, hold its own in the fight to conserve the soil."

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Vol. LXX, No. 6

Section 1

July 11, 1938

COTTON

The Department of Agriculture announces that 26,904,000 ACREAGE

acres of cotton were in cultivation July 1. This was 78 percent of the acreage a year ago, from which the record crop of 18,945,022 bales was ginned. It was the smallest total since 1900. It was the first report on this year's cotton crop. A law forbids issuance of government reports on condition and probable total production before August each year. That information will be announced August 8. (Associated Press.)

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RECORD

The largest collections ever made by the Internal REVENUES

Revenue Bureau in a fiscal year were recorded in the 12 months that ended June 30, Commissioner Guy Helvering announced yesterday. A preliminary statement from the bureau gave aggregate collections for the year as \$5,658,385,125.44, compared with \$4,653,-195,315.28 for the previous similar period. The 1938 total exceeded by \$250,804,873.63 the largest previously recorded, in 1920, when \$5,407,580,-251.81 flowed in. (Press.)

N.Y. MILK

Within a month of the start of its experimental operaCOOPERATIVE

tion, the (New York) Consumer-Farmer Milk Cooperative, Inc.,
is now ready to begin city-wide distribution to its members,
according to Meyer Parodneck, president. The cooperative is the first
large-scale organization of its kind in New York and the first direct partnership between consumers and dairy farmers in the East. Five thousand
members are buying 7,000 quarts of milk a day. In following the cooperative principle of selling at the lowest prevailing market price, he added,
the milk cooperative is distributing Grade B milk at 8 cents a quart. (New
York Times.)

GERMAN FARM

A Berlin report by the Associated Press says that Field REGULATIONS

Marshall Hermann Goering, Germany's economic dictator,

Saturday offered new inducements to the rural population to remain on the land. Marshal Goering decreed that the present governmental marriage loans of up to \$400 for setting up households of young farmers need not be repaid if couples remain on the land for ten years. Moreover, married farmhands may be granted loans up to \$320 for agricultural implements, cattle, etc., which similarly need not be paid back if the recipient remains on the soil for ten years.

This nation's population of 127,500,000 of 1935 will Trends in reach a maximum of 158,000,000 in 1980, but then will Population slowly decrease unless the birth rate increases or immigration policies are changed, the Committee on Population Problems of the National Resources Committee reported recently to President Roosevelt. While it set 158,000,000 in 1980 as the maximum of population, the committee also gave a minimum estimate, which placed the peak at 138,000,000 in 1955, with a decrease of 10,000,000 in the ensuing twenty-five years. Many signs were found that the trend of population is toward a decrease. For instance, the rate of growth during the depression was only half that during the decade 1920-1930. The rate of increase between 1920 and 1930 was lower than in any previous ten years. Convinced of the gradual decrease, the committee saw no cause for alarm. It suggested that a downward trend during the next half century may afford a chance to work out better human relations. (New York Times.)

Day Directs

Appointment of Albert M. Day, biologist of the BioWildlife Work

logical Survey, as chief of the Survey's new division

for administering the Federal-State cooperative wildliferestoration program, is announced by the Department. Mr. Day was in
charge of the Section of Predator and Rodent Control of the Bureau's
Division of Game Management. Mr. Day joined the Biological Survey in
1919 as a field assistant in rodent control in Wyoming. Later he was
in charge of cooperative work for controling injurious mammals in Wyoming and part time in Nebraska. After transferring to the Bureau's Washington Office in 1930, he was placed in charge of the Section of Predator
and Rodent Control.

Oxone in Predictions and records of ozone promise to be important not only to bathers exposed to sunshine but to. Weather Forecasts physicians who use sunlight as medicine, farmers whose crops are influenced by sun energy, weather experts who must make forecasts and others, says a copyright Science Service report. To the American Association for the Advancement of Science recently Dr. Brian O'Brien of the University of Rochester announced a new instrument that measures and records the ozone in the upper atmosphere. It may soon be standard equipment in weather stations in various parts of the world. Ozone is oxygen in very active form and a very little of it has vast influence on the quality of the solar radiation that gets to the earth's surface. All of the ozone in the earth's atmospheric blanket, situated mostly at an altitude of 25 miles, would be sufficient to make a layer only two millimeters thick, about the thickness of two ordinary pencil leads. The ozone absorbs part of the solar radiation, the invisible ultraviolet area of the spectrum that lies in the neighborhood of Angstrom units. There may be clouds of ozone analogous to the clouds we see in the sky. These may affect weather and knowledge of them may help the accuracy of weather predictions in the future. Dr. O'Brien's ozone recorder measures the ultraviolet light, charts it upon motion picture film and allows a continuous record of the changes in the ozone layer in this way.

Roadside "The latest formula for parkways is also the last word in government cooperation," says Flavel Shurtleff in Parkways Planning and Civic Comment (April-June). "The land for these 'elongated parks' will be acquired by the states and turned over to the national government. Design and landscaping will be by the National Park Service and construction by the U.S. Bureau of Public Roads... The design of the National Park Service requires a right-of-way of 100 acres a mile or an average width of 800 feet, plus 50 acres a mile for rights in land which will guarantee the full enjoyment of the rural scene. Entrances and exits will be limited in number and their location and design controlled by the national government. Access by private roads will be practically eliminated. There will be no frontage on private land for commercial purposes. Filling stations, inns, restaurants, all the business which caters to the traveling public will be on park land, the buildings designed and their operation controlled by the National Park Service. All outdoor advertising will be banished and such signs as are allowed will fit into the design of the structures. This is the ultimate in roadside control. Parkways will be the preferred tourist routes. The experience with county parkways and the unquestioned success of the Skyline Drive make this a safe prediction. The National Park Service has already planned for an extension northward of the Blue Ridge Parkway to tap Pennsylvania, New York and tourist New England ... The protection of human lives, the conservation of the investment of public money in the roads and the preservation of rural America dictate a fundamental change in highway policies. Rural zoning, whether by town or county ordinance, will play an important role by regulating the use of land before the highway is built. Where counties and towns are slow in the performance of their duty, a roadside protective area will be established under state law. Roadside control of the main travel routes of the country may well be perfectly realized in the next fifty years by parkways for scenic areas and by limited access roads which will concentrate roadside business and banish outdoor advertising from the rural scene."

Beet Growing The University of California has been given a grant of \$70,000 by the United States Beet Sugar Association to Machinery finance a three-year program of research directed toward the perfection of machinery used in sugar beet cultivation and harvesting, Dean C. B. Hutchison of the College of Agriculture, announces. He stated that the grant would be of great assistance in hastening the results of experimental work already under way in the division of agricultural engineering on the Davis campus, under Prof. H. B. Walker, head of that division. The Sugar Beet Association has named an advisory committee from its membership to act as consultants with the Experiment Station staff and to foster cooperation between producers, implement manufacturers and the investigational staff. The U.S. Department of Agriculture has been cooperating in these investigations with the University of California for several years and it is expected that as plans materialize, state experiment stations in other sugar beet areas will be asked to aid with advice and trials of equipment. (California Cultivator, July 2.)

Schools for "For the past two or three years a great deal of in-Grain Grading terest has been exhibited in the grain grading schools (supervised by the Bureau of Agricultural Economics) which have been held at widely scattered points all over the grain and corn belt, " says an editorial in the Grain & Feed Review (June). "The motive behind these schools is to demonstrate to the country buyer the correct method of testing grain and to show him just how his shipments are grading when they arrive at the terminal markets... Here is what a manager of a farmers' elevator company in Nebraska had to say after attending the school in Omaha last summer: 'The day I spent at the school in Omaha gave me the confidence I needed in testing light wheat and off-grade grains. I believe every (elevator) association should insist on its manager attending the school next year. Over-grading of grain is unfair to the manager and his company while under-grading is unfair to the producer. A Minnesota operator of a country elevator who attended the Northwest Retail Feed Dealers school in May also praises the idea of grain grading classes. 'This grain grading business is something that a buyer in the country cannot learn too much about, 'he declared. "... I consider these grain grading schools a wonderful opportunity to brush up on my past experience and to gain new facts. ... It is encouraging to note what these men say about the grading schools and to note the numbers who flock to these classes whenever they are offered. "

Prof. E. W. Crampton, in the Farmer's Magazine Rail Grading (Toronto, July) under the title, "Rail Grading Tells the of Swine Story, " says: "...Believing that the rail grading method was eventually bound to be the basis for the market classification of hogs, a study was started some three or four years ago at Macdonald College of hog carcasses and of factors which affected them. eral hundred pigs have been individually fed from weaning to a market weight of 200 pounds, and then followed individually through a slaughter test... While the study is still in progress, some interesting information already has been obtained. One of the most important facts thus far established is the primary importance of the correct weight of the pig at marketing. Our findings indicate that, in general, if the pig is fed until it reaches 200 pounds, many things may have happened to it during the feeding period without leaving any mark on the excellence of the carcass produced. For example, because of improper feed, or of some management condition, pigs have been delayed in getting to market weight by as much as two months. During these periods they have frequently lost weight. But when they were put on the market and their carcasses scored, the packers' representatives were unable to pick out these individuals from those of the regular groups. As to the specific effects of different feeds on carcass excellence...feeds which have a tendency to fatten should not be heavily fed at the early stages of growth ... Another finding of much significance relates to the amount of lean in the bacon rasher... Over a wide range of feeding conditions and kinds of rations, breeding rather than feeding is the more important cause of variations in this character..."

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Vol. LXX, No. 7

Section 1

July 12, 1938

WHEAT CROP

The Federal Crop Reporting Board forecast yesterday a 1938 wheat crop of 967,412,000 bushels—the second largest on record. On the basis of present prices, this estimate made it mandatory under the farm law that the government provide loans to growers desiring to hold surplus supplies off the market until they are smaller and prices are better. The loan rate, which officials said they would announce later this week, must be between about 59 and 85 cents a bushel. (A.P.) Notwithstanding an almost unprecedented big increase of 13,682,000 bushels in the United States visible supply total, Chicago wheat values yesterday rose nearly a cent, according to a Chicago report by the Associated Press.

PUERTO RICAN

A San Juan cable to the New York Times says that
FARM INSURANCE through the Agricultural Association, Puerto Rico's
farmers have won a marked reduction in the rates they
must pay for workmen's compensation insurance in the government agency.
The minimum premium has been reduced from \$50.90 to \$31.40, and the base
rate per \$100 of payroll has been lowered from \$8.18 to \$6.35. The farmers are still fighting in the courts the rates charged last year and paid
under protest. They confidently hope to win a further reduction from the
Supreme Court.

Cool, damp weather in most of the United States has INSECT PEST BULLETIN. kept several important crop insect pests from being as destructive to early crops as expected, according to the Insect Pest Survey Bulletin of the Department. Enough pests in immature stages remain, however, to develop rapidly into serious crop threats if the weather this month is favorable to them. Grasshopper development has been very uneven. All stages-from eggs to adults-can be found. The Mormon cricket has done less damage to crops this year than last, especially in the Rocky Mountain region. Isolated infestations by the chinch bug, from moderate to severe, are reported throughout the Corn Belt. The Hessian fly apparently has not harmed this year's wheat crop much. It has multiplied so rapidly, however, that it may seriously threaten the crop to be planted in the fall. Because of prolonged cold, rainy weather, cutworms have continued destructive later than usual. The armyworm outbreak, on the other hand, has largely subsided in the Mississippi and Ohio Valleys, evidently because of some insect disease that is fostered by the cold and wet.

Civil Service The Civil Service Commission announces the following Examinations examinations: unassembled, home economist, \$3,800, associate home economist, \$3,200 (optional subjects, 1--food economics, 2-family economics) Bureau of Home Economics; unassembled, home extension agent, \$2,600, junior home extension agent, \$1,800, Indian Field Service, Department of Interior; assembled, junior blueprint operator, \$1,440, under blueprint operator, \$1,260, junior photostat operator, \$1,440, under photostat operator, \$1,260. Applications must be on file not later than for home economists and extension agents, August 8, for blueprint operators and photostat operators, August 1, if received from states other than those named in (b); (b) for home economists and extension agents, August 11, for blueprint operators and photostat operators, August 4, if received from the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Canning Electricity on the Farm (July) says that canning is a at Home process that demands exact knowledge, careful execution and patient obedience to rules. "You can get them," it says, "in bulletins or circulars from your own state university and from the United States Department of Agriculture. These bulletins have in them, boiled down and put into something that approaches kitchen English, the results of constant research and experiment by trained food specialists all over the country. Home Canning of Fruits, Vegetables and Meats, Farmer's Bulletin No. 1762, is available from the Superintendent of Documents, Washington, D. C. The bulletins from your own university are doubtless free to you as a citizen of the state. . . If you'll just run over that bulletin from the U. S. D. A., you will find that Dr. Louise Stanley says: For purposes of canning, foods are considered in two groups according to the quantity of free acid they contain. The acid foods are fruits, tomatces, pickled beets, ripe pimentos, and rhubarb. The non-acid foods include all other vegetables, such as asparagus, peas, beans, and corn, and also meats and poultry. Now the acid foods can be safely processed at the temperature of boiling water. You can get that temperature, around 212 degrees in a water bath, in a steamer without pressure, or in an oven whose temperature you can regulate accurately. All of the other foods should be processed in a steam pressure canner at a temperature of 240 to 250 degrees, a temperature you can get with 10 to 15 pounds pressure. .. "

Rural Fire Percy Bugbee, of the National Fire Protection AssociaStandards tion, reports in the Amercian City (July) that "the Farm
Fire Protection Committee (of the association) has secured
final adoption of new standards for rural fire departments, which will be
widely used to measure the effectiveness of the 12,000 volunteer fire departments and will serve them as a guide."

Increased interest in suburban and subsistence types
Tractors of farming is creating a demand for a "pony" tractor,
capable of pulling a 10-inch plow, and providing a seat on
which the operator can ride. Sales of all sorts of garden tractors have
been increasing. A garden tractor with a 1½ horsepower electric motor
is being experimented with by agricultural engineers at the California
University Farm, Davis. The tractor compares favorably in original cost
and expense of operation with gasoline tractors. It has an automatic
tension reel which winds and unwinds 100 feet of electric cord, and 300
additional feet of cord give the tractor considerable range. It is quite
flexible, needs no clutch, and to back up, the motor is reversed. Tillage
fingers, without springs, do most of its plowing and cultivating operations. (Pacific Rural Press, June 25.)

Department

"A search room adjacent to the office of Theodore R.

Archives

Schellenberg, Chief, Division of Agriculture Department

Archives, has been provided primarily for the use of officials and employees of the Department of Agriculture who may desire to
consult and study records of the Department of Agriculture in the custody
of the Archivist, a letter from the administrative Secretary of the
National Archives advises. He adds: "Officials and employees of the Department of Agriculture who desire to utilize this search room should
request the guard on duty at the Pennsylvania Avenue entrance to direct
them to Mr. Schellenberg's office. Mr. Schellenberg will take pleasure
in arranging suitable accommodations in this search room and in rendering
every service and assistance possible." (B.A.E. News, July 1.)

Farmers Small Farm and Ranch (July 1) in an editorial on small co-Cooperatives operative organizations, says: ". . There are over 600 such organizations in Texas, the cooperative gin groups making up for about half of the total. These small organizations are succeeding where earlier attempts at Nation-wide groups failed. In the ' smaller organizations members are acquainted with one another. They vote for officers and have a say in the management of the association. They are democratic in form and in operation. American farmers are not the best cooperators in the world. It is only of late years that they have come to realize that the trend of the times requires group action, and through the small groups they are learning the theory and practice of cooperation. Three hundred cooperative gins in Texas handled the cotton of 50,000 members in 1937, ginning 800,000 bales. According to C. E. Bowles, Extension Service marketing specialist, farmers were saved approximately \$2,000,000. Ocoperative gins in Oklahoma were also successfully managed and dividends paid to members. Cooperation is essentially a community proposition."

Canadian Canadian cuckoos wage incessant war on hairy cater-Cuckoos pillars, common in the summer, make them valued allies of farmers and fruitgrowers. Cuckoos often tear apart the webs or tents of these destructive larvae to eat the inmates, and they also devour quantities of spiny caterpillars which are avoided by other birds, reports Canadian Resources Bulletin. (Press.) Skim Milk "Dr. M. H. Haydak of the University of Minnesota has for Bees done much experimental work on the feeding of bees," says Wisconsin Agriculturist (July 2), "and has found that many feed concentrates containing protein may be used with more or less success as a substitute for pollen. Mixtures of soybean flour or cottonseed meal with dry skim milk have given consistently good results. Dr. Haydak has recommended that 20 percent of powdered skim milk be used in such mixtures to get best results. Bees can develop their bodies normally when fed powdered skim milk, 20 percent by weight, mixed with soybean flour, soybean meal, peanut meal, linseed meal, or mixed with a combination of soybean, linseed and cottenseed meals, says Dr. Haydak. Young bees were produced only by those colonies which had pollen, or had skim milk powder mixed with soybean flour, seybean meal or cottonseed meal."

REA Electric "June 18 was a history-making day, at least in the Cooperative lives of farm folks in the vicinity of Ubly (Michigan)," says an editorial in Michigan Farmer (July 2), "when with fitting ceremonies and in the midst of a celebration attended by an estimated crowd of 10,000 people, the switch was thrown and three generators began to hum, sending light and power out over some 1,300 miles of line recently completed by the Thumb Electric Cooperative, energizing the largest project to date to receive the aid of the Rural Electrification Administration at Washington. Numerous commercial displays of the various appliances that help to make life longer, happier, and profitable on the electrified farm held the attention of interested crowds. The march of electricity into the rural areas of this state has been most gratifying the past several years, and we applaud efforts from any source that contribute to it, so long as the power is furnished at a cost that makes this modern genii an economical servant of the farmers."

The regional swine breeding laboratory now being es-Swine Testing tablished on a 160-acre tract southwest of Ames, Iowa, will Laboratory seek to improve sow productiveness, growth rate of pigs, economy of gains, physical vigor and carcass quality, says Dr. W. A. Craft, director in charge. The laboratory location was determined over a year ago, but necessary building construction is still in progress. Five state stations -- Iowa, Minnesota, Missouri, Nebraska and Oklahoma -- now are working with the regional project near Ames. Other states may take part later. The Iowa state workers are investigating the intensities of inbreeding with the Poland China and Danish Landrace breeds, plus crosses between these breeds. At the cooperating Minnesota station, Poland China hogs are being used to establish inbred lines, and there also is crossbreeding involving the Danish Landrace and Tamworth breeds. The Nebraska and Oklahoma stations will use Duroc Jerseys to develop several different inbred lines by moderate inbreeding. The Missouri station will do similar work with Poland China hogs. (Wallaces' Farmer, July 2.)

Food-Drug Law The leading editorial in Industrial and Engineering Chemistry (July) is on the new food and drug law. The periodical says that "a more complete discussion of the law will appear later in our News Edition."

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Vol. LXX, No. 8

Section 1

July 13, 1938

And Administration

CROPS AID

"Bumper crop estimates just released by the Department of Agriculture were regarded as a boon to the hard-pressed railroads," says J. S. Armstrong in the Baltimore Sun.

"... In the case of the Burlington, a large grain carrier, line traffic last were climbed 2.8 percent over the level for the same period last year. The Burlington also showed an increase over the immediately preceding week. Santa Fe reported a decline of only 217 cars for the week, and Missouri Pacific likewise showed only a small decrease. The week-by-week drop of 10.9 percent in Baltimore and Ohio loadings also was less than usual for the season. In the period last year the drop for the holiday week was 14.6 percent..."

CORN PRICE Corn whirled suddenly skyward 3 cents a bushel yester-RECORDS day, reaching new high-price records for the season and giving a big boost to other grain, says a Chicago report by the Associated Press. Speculative buying of corn broadened to large proportions aroused by reports that hot weather threatened to bring about severe crop damage. Previous conspicuous sellers of corn were among the most active buyers yesterday, and there were indications that export purchasing of corn recently had been much heavier than heretofore estimated. Traders took particular notice that the Government forecast showed 300,-000,000 bushels less corn than last year in Iowa, Illinois, Indiana and Ohio. At the close, corn futures were at the day's top level, 2 1/8 to 3 cents above day before yesterday's finish; July, 60 3/8 cents, September, 61 7/8 to 62 cents; December, 61 3/4 to 61 7/8 cents. Trade in corn was the liveliest witnessed in many months. The upturn of prices attracted selling from the country and purchases of corn to arrive at Chicago, 450,000 bushels, outdid those of any single day in a long while.

"RAIL PARITY"

Two witnesses yesterday at a hearing of the Interstate RECOMMENDED

Commerce Commission urged "rail parity" for southern shippers as an instrument for national good. Joseph G. Kerr of Atlanta, Georgia, chairman of the Southern Carriers' Association, said parity would be "in the interest of the great mass of consumers in northern territory and therefore in the general public interest." Benjamin Russell of Alexander, Alabama, president of the State's Chamber of Commerce, insisted it would "expand the southern market for northern and eastern products." The ICC is being asked to establish rates for southern shippers to northern points comparable on a mileage basis to rates being paid by shippers within the northern area. At present, freight rates within the southern area are generally higher than those in the northern or "official" freight-rate district. (A.P.)

Food and Drug Law The New York Times (July 10) in an editorial on new food and drug legislation, says: ". . .Judged in its entirety the act is a forward step. The old law of 1906 was a historic piece of social legislation. Yet it was negative.

It prohibited deceit, but it did not compel virtue. Because it is more positive the new law should have a salutary effect in raising the quality of foods, drugs and cosmetics. More effective control is now provided for poisonous or deleterious ingredients in food. No longer will it be possible to sell food which contains a 'natural' poison. The old law, passed when the virtues of vitamins were hardly known, did little to protect infants and invalids from eating supposedly good but inadequate food. Now labels must indicate the important ingredients -- vitamins, minerals and the like. Especially stringent are the paragraphs that permit direct action when contaminated food causes outbreaks of disease. Under the old law the manufacturer of dirty food could escape so long as his food passed official tests. Filth is difficult to detect. In the future factory conditions must be sanitary. Housewives will also welcome the new definitions and standards of identity of foods, which, among other things, will make it impossible to sell a jam as a composition of pure fruit and sugar when it consists largely of sugar, small amounts of fruit acid and pectin. So with preposterously named proprietary foods. Their labels must indicate what they contain... Though the medical profession may quarrel with some sections of the law which deal with drugs and patent medicines, it must admit that the quack or nostrum vender will have to be wilier than ever. Formerly, intent to deceive had to be proved against him, with the result that druggists! shelves were crowded with his preparations for the 'cure' of tuberculosis, diabetes and a score of complaints. Now it is enough that his label is false. . . Good as the law is, it could be better. For instance, no adequate provision is made to establish standards of quality for canned goods. Nothing is said about grading foods on labels, so that a housewife may know what she is buying. There is no excuse for omitting toilet soaps from cosmetics. Questionable, too, is the examption of dried fruits and vegetables from definitions and standards of identity, so that it will be impossible to stop the sale of excess water, and the concessions made to orchardists whose fruit has been sprayed with insect-killing poisons. On the whole we have reason to be thankful that the consumers' associations were able to make their influence felt. The law is the result of a valiant struggle by the late Senator Copeland. It stands as a monument to his pertinacity, good sense and interest in the welfare of the public."

Cotton Boosts

Advertising of newspaper advertising to promote cotton goods during
National Cotton Week, May 30-June 4, according to a statement by Cotton-Textile Institute, Incorporated. Fifty-six newspapers were
used in Atlanta; Chicago, Cincinnati, Cleveland, Dallas, Decatur, Los
Angeles, Muncie, New Orleans, New York, Portland, Ore., Sioux City, Iowa;
Springfield, Mo.; and Tulsa, Okla. An increase in cotton promotion was
seen this year by the institute which estimated that 50,000 stores participated in the nation this year as against 40,000 last year. (Editor and
Publisher, July 9.)

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New Berries Quick-freezing raspberries, or special fruit that has been developed to meet modern cold pack needs, are being For Freezing relied upon to revive one of the state of Washington's greatest industries, raspberry raising, since the Puyallup Valley is the nation's No. 1 berry backyard. Experiments which have been completed by the U. S. Frozen Pack Laboratories in Seattle, Washington, invaluable in the fruit field of that region, have demonstrated that the two new berries are well suited to the quick-freezing methods with which they will be treated for national markets and the tables of America. The new berries developed have been designed to have greater resistance to cold, since the winter-kill of last year is costing Washington a third of its crop this summer. Over a period of many years, the hybrid berries have shown no injury from freezing. Sweet and with a delicate flavor is the new "Washington" berry, while the "Tahoma" is the sour species, an earlyriperer, of brilliant hue, and exceptionally well-adapted to taking the quick-freezing. They are the handiwork of joint experimenters and researchers of the Western Washington Experiment Station at Puyallup, Washington, and the Washington State College at Pullman, of which the Puyallup station is a branch. (Ice and Refrigeration, July.)

Turkey Eggs
for Food

after the hatching season, the poultry department of the

Kentucky College of Agriculture suggests that farmers use
them on their home tables and sell the chicken eggs. Turkey eggs are as
good as any other kind of eggs, but there are not enough produced to make
a place for them on the market. Hence, the suggestion that they be consumed at home; and the chicken eggs that would have been used sent to
market. By continuing mash feed to turkey hens, they will lay throughout
the summer. Their eggs will help pay their board bill. (Turkey World,
July:)

Fertilizers In "Orchards Differ in Fertilizer Needs," in Better for Orchards Crops With Plant Food (June-July) the author, F. N. Fagan, Pennsylvania State College, says: "During the past 35 years, many published reports on orchard fertilization have originated from orchard fertilizer tests conducted by the Agricultural Experiment Stations of the United States and Canada. . . One outstanding fact coming from studies of orcharding is that an orchard can not be successful unless some type of soil fertility method is used. For many years nitrogen fertilization has been the method receiving the greatest amount of thought, and justly so, for this element by its very nature is the one that is lost from the soil most rapidly, the one most lacking as orchards become older. But as years rolled on, nitrogen fertilization did not solve the problem completely in all the orchard districts. It is interesting and of value to see the determined efforts being made now in the studies of plant nutrition deficiencies in relation to orchard tree growth and production. These studies extend from zinc deficiencies in citrus culture through to calcium, magnesium, phosphorus, potassium, and even boron deficiencies of our many other tree fruits. It is interesting to note the swing, in the

eastern part of the United States, to the complete fertilizer recommendations as new studies are reported upon. No one complete fertilizer is going to meet the needs of all orchards, but recent recommendations of formulae extending from (N-P-K) 4-8-4 through 4-12-4, 4-16-4, 9-6-6, 5-10-5, to 10-6-4 are in the right direction in orchard fertilization. . . "

M. S. Eisenhower, Coordinator of Land-Use Planning of Coordination the Department, in an article in Extension Service Review of Land Use (July) says in part: "Every branch of the Department is engaged in some phase of land-use planning. Adding it all together, we are trying to marshal and interpret the facts so as to plan the best possible use of our farm, range, and forest lands for the benefit of the largest possible number of people. Therefore, in developing a plan for any given area we must provide coordinating facilities for interbureau consideration. Now, of course, there are many kinds and levels of planning. Let's look at just one example of planning by specialists and then more generally at planning by farmers. A comprehensive flood-centrol plan for a given watershed may be prepared by the Soil Conservation Service, the Bureau of Agricultural Economics, and the Forest Service. But this plan, before submission to Congress, must be considered by the Department as a whole to determine its relationship to the program of the Agricultural Adjustment Administration, which makes payments within the watershed for specific land-use practices, and to the tenancy and rehabilitation programs. In short a flood-control plan for any watershed must harmonize with the Department's total land-use objective for the area. Land-use planning by specialists is of little value unless the results are accepted and put into effect by farmers. Further, planning by specialists can cover only a small portion of the country each year, whereas action programs are in effect in practically every agricultural county. About three years ago planning by farmers themselves with the help of State and Federal people started in most of the States. . . Farmers quickly saw that the conservation problem, the tenancy problem, the submarginal land problem, and other problems are essentially one and that they, therefore, had to develop comprehensive landuse plans which considered the whole field of agriculture and the relationship of people to the land. County planning by farmers has made tremendous strides in many States and promises to be the thing that will more permanently tie all local, State, and Federal efforts tegether in working toward common objectives. The principal requirement now seems to be to systematize these efforts on a county, State, regional, and national basis."

Filled-Milk "The interstate shipment of filled-milk has been Prohibition definitely prohibited by upholding of the federal statute by the Supreme Court," says an editorial in the Creamery Journal (July). "State laws, unless faultily drawn up, are being construed in line with the Supreme Court view. Thus the dairy industry has won in its fight to uphold one of its products from prostitution merely for the sake of the extra margin of profit available when a low cost vegetable oil is substituted for the normal butterfat content. Aside from this motive there is none other in the compounding of the product known as filled-milk."

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Vol. LXX, No. 9

Section 1

July 14, 1938

EVER NORMAL

An international ever-normal granary plan covering all GRANARY PLAN

major wheat-producing countries of the world will be proposed at the International Wheat Conference that opens to-day in London, Secretary Wallace announced yesterday at his press conference. Dr. A. G. Black, chief of the Bureau of Agricultural Economics, who is representing the United States at the conference, will make the proposal. Other nations have not been consulted about the plan, Mr. Wallace said, but he added that he hoped the proposal would be received favorably. (New York Times.)

WHEAT LOAN

A wheat loan program offering cooperating wheat producers loans at farm rates averaging between 59 and 60 cents a bushel is announced today by Secretary Wallace.

The loan is approximately 52 percent of the present farm parity price of wheat, \$1.14 a bushel. The loans will be made by the Commodity Credit Corporation, and AAA committees will certify producers who are eligible for loans and be responsible for grading and inspecting farm-stored wheat placed under loans. The rate of the loans to be offered farmers at individual points will be calculated from basic rates established for the principal terminal markets with differentials for freight and handling charges for interior points in the western and central parts of the United States and flat rates by states elsewhere.

RECORD SWINE, Prices for hogs and cattle yesterday established new CATTLE PRICES high records for 1938, says an Associated Press report from Chicago. The top for hogs advanced 10 cents to \$10.20 a hundredweight, highest since last October and \$2.05 above the three-year low reached earlier in the year. The top for steers advanced 25 cents to \$12.75, with the general level of cattle the highest since last year and almost \$3 above the two-year lows touched in February.

GRASSHOPPERS

A Pendleton, Ontario, report by the Canadian Press
IN ONTARIO says that millions of grasshoppers, covering more than
sixteen square miles of farm lands northwest of this Prescott County settlement, have caused damage estimated at \$40,000 and have
left more than a dozen farmers without any crops or pasture for their
cattle. Cattle have been moved from the area to rented pasture lands because they were starving.

"The death rate has fallen sharply nearly everywhere Statistical Yearbook on earth and the exocctancy of life has increased generally for all age groups, but most for babies, according to the current edition of the League of Nations statistical yearbook." says Clarence K. Streit in a Geneva report to the New York Times. "It includes much new material, especially on population - fertility, net rates of reproduction and expectation of life. It shows that a white girl born in the United States in 1935, the latest year for which figures are given, had then the highest expectancy of life of any child on earth, 64.72 years. Her brother could expect only 60.72 years. . . In the United States infants of either sex in 1935 could expect two years more of life than in 1929, when the economic depression began. This is typical of the general rise. Meanwhile the birth rate has fallen sharply in most countries, so much that many are just above the reproduction line. A League communique on this yearbook states: 'In many countries reproduction is no longer sufficient to maintain the population. But it adds, This fact is masked because reproductive middle-aged groups happen to be exceptionally large. In the United States, the United Kingdom and many western countries the percentage of population under 10 years of age has dropped considerably in the past quarter century and the percentage over 50 years of age has increased even more sharply. . "

Junior Game

Back in 1936 the California Division of Fish and Game

Patrol Plan applied a unique feature to its program of "Conservation
through Education" by instituting a Junior Game Patrol plan
which would offer boys of school age a basic education in conservation
policies. Today the state's Junior Patrol has grown to scores of boys'
clubs embracing hundreds of members, and the idea is spreading to other
states. Patterned something along the lines of the Boy Scouts, the Junior
Patrol is open to boys between the ages of twelve and twenty, with trained
patrol leaders in charge. Sportsmen's clubs sponsor the individual
units. (Field & Stream, August.)

Color in The American Fruit Grower (July) in an editorial on color in fruit, says: "What can the orchardist do about it? Fruit Every experienced orchardist knows that there is no simple formula. For one who is starting a new orchard the problem is easier, for more is known about it than formerly. First he will select red strains of varieties, which is the best guarantee of good color. Red sports of most of the red apples are available and they are of better color than the parent strains. Next he will be more careful in choosing a site. A soil that is well drained has an advantage, and a site with a good elevation usually comes through with well colored fruit. From a cultural standpoint too much nitrogen must be avoided. Some reduction in yield may need to be sacrificed but if good color is the result it will pay well. This is as true for peaches as apples. Thorough spraying with the mild forms of sulphurs will reduce injury of foliage and give a better finish of fruit than the caustic sprays. Thinning of apples and peaches is another means of improving color when the crop is heavy. More sugar is available for each individual fruit in this way. Irrigation when the ground becomes very dry will often help. When all these requirements are met, then the role that the sun plays is most important. "

Air Cooling

"It looks as if the big demand ahead of us is for air for Farms

conditioning," says an editorial in Pacific Rural Press

(June 25). "Last year in Imperial county, in southeast

California, at least 2,000 air-conditioning units, either commercially produced, or home-made, were installed. In Arizona air-conditioning of farm homes is a wide-spread reality. In California where a large percent age of the farms have electricity, air conditioning is the next big job... One of the problems you engineers can help with is the perfect type of insulation which will make a minimum amount of air conditioning suffice and in the case of air conditioning by evaporation will not put too much moisture into the home. The FHA figures show that this area leads in rural housing improvements and we ought to do a lot of the type of building which fits into our air-conditioning problem."

Cooperatives Sweden has found the solution of the monopoly question in Sweden in the downward price pressure of the cooperatives in that country, Albin Johannson, president of Kooperativa Forbundet, the Cooperative Union and Wholesale of Sweden, said recently. Although estimating that the coops in Sweden save consumers 100,000,000 crowns (about \$25,000,000) annually, which he said is released for the purchase of other products, Mr. Johannson was not willing to say that cooperatives were the answer to monopoly problems in the United States. (New York Times.)

Canadian

For some time to come Canada's total area to field

Crop Area

crop production will be stabilized at approximately

60,000,000 acres, Dr. L. E. Kirk, dean of the department of

agriculture, University of Saskatchevan, told the Canadian Chemical Association recently, according to a Winnipeg report in the Northwestern Miller

(July 6). Statistics indicate that the period of rapid expansion is

definitely past, he said. He pointed out that during the years from 1870

to 1930, the rate of increase in field crop production averaged 4.7% annually. Since 1930, however, there has been a definite decline in the

production of wheat oats, barley and rye. Drouth accounted for a good share of the decreases registered in wheat and barley. He estimated that

Canada would use 298,000 tons of fertilizer this year, but of this total only 9,000 tons would be used in the prairie provinces.

Brazilian Exports of raw cotton by Brazil so far this year show Raw Cotton a decline compared with the same period in 1937, the Dompartment of Commerce reports. Exports in the first three months were 35,937 metric tons, against 37,621 in 1937. A metric ton is about 4.6 bales of 476 pounds. (Press.)

Wheat Grass A Saskatoon, Saskatchewan, report by the Associated Press says crested wheat grass, a virile drought resistant, has brought new hope to western agriculture through its enormous power to restore root fiber to overworked soil. Dr. L. E. Kirk, Dean of Agriculture of the University of Saskatchewan, developed the Fairway strain of crested wheat grass which is figuring so largely in prairie farm rehabilitation.

Duck-Stamp The Chief of the Bureau of Biological Survey, Ira N. Gabrielson, contributes the editorial in August Field & Dollars Stream, "The Useful Duck-Stamp Dollars." "In the three fiscal years of 1935, 1936, and 1937," he says, "the duck hunters of this country have raised a fund amounting to \$1,676,787 by means of the F.M.B.H.S., commonly called the duck stamp. . This money has been of inestimable value in carrying on the waterfowl-refuge program that was started in 1933 on a nation-wide scale... The Duck Stamp Act specified that 90 percent of the proceeds should go for the purchase, development and maintenance of refuges ... It happened that just at the time the duck-stamp funds became available some \$11,500,000 of emergency funds was also put at the disposal of the Survey for the purchasing of refuge lands. Through the use of this money and by withdrawals of public lands the Survey has added 4,919,395 acres to the wildlife-refuge system. Of these lands 2,681,080 acres are primarily waterfowl areas which need much restoration work before they will function with the greatest efficiency. During this period of the restoration program money for acquisition purposes was available in fair amounts, but no emergency funds were available for the development of a large part of the area acquired. This was when the duck-stamp money came in and helped us out. Due to the low ebb of the waterfowl resources, it was desirable to recondition the marshes and put them on a productive basis as soon as possible. Much has been done in this direction. In three years' time abandoned grain fields have become waterfowl marshes of the highest productivity, with the proper marsh vegetation and ecology to insure nesting success. . . By July 1, 1937, approximately \$460,000 of duck-stamp money was still unallotted. This is being used this fiscal year to supplement again CCC and WPA funds and other money in order to get the most good out of available labor and to round out the acquisition of some refuges. Montezuma Marshes in New York and Back Bay in Virginia will largely be duck-stamp refuges, while the acquisition program on White River, Arkansas, and Tamarac Lakes in Minnesota is being completed with these funds. I believe you will be astonished, Mr. Duck Hunter, to learn how much has been accomplished with the few cents that you have contributed each year to the restoration and preservation of the sport of wildfowling. "

Australian

A Canberra dispatch by the Associated Press says

Trade Pact details of a Japanese-Australian trade agrement, effective recently, involving Australian wool and Japanese cotton goods, were announced by the government. Under the agreement Japan will permit the importation of Australian wool on the basis of two-thirds of total wool imports from all countries. This will be increased to three-quarters when Japan's total imports exceed 500,000 bales. Australia will import 51,250,000 square yards of Japanese cotton piece goods or a similar amount of artificial silk or staple fiber piece goods.

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Vol. LXX, No. 10

Section 1

July 15, 1938

INTERNATIONAL A London wireless to the New York Times says reports WHEAT MEETING of bumper wheat crops, which are now expected to bring in the largest harvest in the world's history, and prospects of further increases in acreage next season were submitted yesterday at the opening session of the International Wheat Conference. So detailed was the discussion of each country's prospects that the United States delegation postponed submission of Secretary Wallace's "ever-normal" granary scheme until the final meeting today. The conference is expected to vote on the plan in principle, leaving its details, if it is approved, to be worked out by an advisory committee. Delegates from Australia, Great Britain, Switzerland, Hungary and France as well as the United States took the lead in the discussions. It was generally agreed that unless some kind of effective regulation was achieved, disastrous international price wars would be most likely to result.

MEXICAN

Governors from twenty-eight Mexican States and three

FARM AID

Federal territories, meeting at Mexico City to outline

social and economic policies, decided yesterday to give

guarantees of full protection to small farmers as a means of increasing

agricultural production. A resolution was approved for a 50 percent increase in state appropriations to speed the division of large estates

in order to give peasants all the land they need. (A.P.)

PRICES

Prices for hogs broke yesterday 25 to 40 cents a

OF HOGS

hundredweight from the 1938 peak, reached day before yesterday. The break was attributed by major packers to

efforts of the market at Chicago to realign itself with other major markets, as well as to wholesale prices and light eastern demand. Day before yesterday's top of \$10.20 was the highest since last October. Packers pointed out that the top in Indianapolis, normally 10 cents above Chicago's, was only \$9.90 day before yesterday. (A.P.)

U.S. CANNED

The Bureau of Agricultural Economics reported yesterVEGETABLES

day that the carryover of canned vegetables was the largest since 1932-33 because of the large 1937 pack and a "sharp decline" in consumer purchasing power. It said a small income was in prospect for growers because nanufacturers were reducing their purchasing contracts. (A.P.)

Section 2

The July issue of the Milbank Memorial Fund Quarterly Population Problems says: "The social and economic characteristics of the chief sources of our future population are matters we can no longer safely ignore. Studies have repeatedly indicated that highest birth rates in this country are found in rural areas where levels of living are lowest, where schools are poorest and where health facilities are most meager. The far-reaching implications of this situation are realized when we consider that, due to low birth rates in large urban centers, the cities must draw upon the surplus population of benighted rural areas for a substantial part of their population renewals. In an article, 'Constructive Rural Farm Population Policies,' Dr. Carl C. Taylor and Dr. Conrad Taeuber of the Division of Farm Population and Rural Life, U. S. Department of Agriculture, emphasize the need for attention to the problem and suggest several broad lines of attack." The article says in conclusion: "It is more than likely that sooner or later a turn in economic trends will again stimulate a marked flow of farm population to industrial centers. But even though this movement should become as great in magnitude as in the decade between 1920 and 1930, the data (in this paper) would seem to prove that there would still exist rural population problem areas. Unguided migration has not solved, but in fact created most of the problems of these areas in the past. There is no reason to believe it will solve them in the future. Increase in the mechanization and commercialization of farming has done somewhat the same thing. Crop control and price adjustments only slightly affect one-half of the farms of the Nation. Relief, unless it is something more than 'made work' or the 'dole,' probably tends to stabilize populations in areas which should be migrative. Something more is needed if we would attack farm population maladjustments by means of constructive and rehabilitative policies. The programs suggested here are: (1) The promotion of balanced or 'live-at-home' farming, i.e., the maximum expansion of homeproduced, home-consumable products; (2) the encouragement of combined farm and industrial enterprises; (3) the intelligent guidance of the relocation, into both farming and industrial opportunities, of those who in the future, as in the past, will each year, in great numbers, move to new locations."

Conservation Conservation (May-June, published by the American Forestry Association) contains a condensation of an adof Forests dress by James G. K. McClure, Jr. It says in the concluding paragraphs: "During the last decade there has been a very noticeable change in the viewpoint of private owners of timber lands. This increased sense of responsibility is one of the important facts for the future of conservation. Given the proper help and encouragement by government agencies in the nature of fire control, tax adjustment and education, we will see the greatest renaissance of improved forest practices that this country has ever witnessed. We sorely need education along conservation and forestry lines in our schools, particularly in our rural schools. Noteworthy work is being done by some state extension foresters but we need more education in our schools on forestry and the conservation of our resources..."

Fertilizer in "One of the great advances in California," says the Irrigation Pacific Rural Press (June 25), "is in the application of fertilizer in connection with irrigation. A good many farmers wash their barns and corrals, carrying the liquid fertilizer out to the fields in the irrigation water. Some dump the soil and liquid manure into concrete tanks where irrigation water churns it up and carries it out to the fields. In some regions where there is no irrigation, farmers collect the solids and liquid manure in concrete tanks and distribute it by sprinkler wagon. There is a good deal of commercial fertilizer being put into irrigation water..."

Construction of the regional poultry research labora-U. S. Poultry Laboratory tory at East Lansing, Michigan, is expected to be under way by August 1, reports Dr. J. R. Mohler, Chief of the Bureau of Animal Industry. The contract calls for the construction of a central laboratory building, two large brooder houses, and two smaller buildings for special disease studies. The buildings should be completed by January 1, 1939. The unit will be located on a site of 50 acres recently deeded to the Government by Michigan State College. Twenty-five North Central and Northeastern States will cooperate with the Department in the laboratory work. The States are Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Wisconsin, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia. As soon as the buildings are completed work will begin on the development of effective control methods for fowl paralysis. It is estimated that losses from poultry diseases cost poultry producers nearly one hundred million dollars annually in the states cooperating in the research. Approximately half of this huge amount, it is estimated, is due to fowl paralysis.

"The half-finished Chickamauga dam, designed to pro-Electricity Through TVA tect the city of Chattanooga, the most vulnerable in the Tennessee Valley, from all but the worst floods, and to help make the river navigable all the way up to Knoxville, was inspected recently by the Congressional committee investigating the TVA, " says Russell B. Porter in the New York Times. "The committee members also saw what the TVA is doing in extending the benefits of electricity to rural areas which until a few years ago had to depend on kerosene lamps, candles and other primitive means of lighting, but are now getting cheap TVA power through rural cooperatives... In its inspection of the rural electricity situation the committee visited the territory of the North Georgia Membership Corporation, a cooperative two years old, which buys power at wholesale rates from TVA and resells it to its members at cheap retail rates dictated by TVA. The cooperative has about 1,800 customers, of whom about 1,600 are residential, mostly farmers, living in seven counties of

Northwest Georgia, near the Tennessee line in the Chattanooga trading area. At J. S. Christian's dairy farm the committee saw a completely electrified cow barn and creamery, including an electric milking machine and refrigerating equipment... As the committee left his farm Mr. Christian urged them to tell the people 'back home' how much TVA was doing to eliminate the hardships of farm life and make it possible for farmers to increase their cash income by using modern methods. Joseph and Thomas White, respectively 70 and 65 years old, also showed their electrified power saved them large sums which they formerly spent for hired help. Mrs. Christian told how electricity lessened the drudgery of farm life in the home. Besides that, Joseph White said, it saved him so much time he could 'read the papers and listen to the radio.' All agreed that life on the farm was much more pleasant with cheap and abundant electric power and that it might hold the young people away from the cities better in the future."

Road Safety Problems of erecting signs and signals along the Conference Nation's highways and proposed measures to control the increasing volume of bicycle traffic held attention of the National Conference on Street and Highway Safety at the United States Chamber of Commerce recently. It was proposed to effect improvement in route markings to facilitate traffic movement and provide motorists with simplified methods of finding their way. The committee revising the code covering uniform traffic control devices is headed by E. W. James, of the Bureau of Public Roads. The need for increasing the size of highway markers -- described as so small in many instances that drivers have difficulty in seeing them -- was stressed by several speakers. A special committee was appointed to study problems of controlling bicycle traffic and safeguard youngsters who are using city and urban streets in everincreasing numbers. Lew Wallace, director of motor vehicles for Iowa, cited the bicycle problem as "acute." "The bicycle," he said, "is here, there and everywhere. We've got to do something on a national scale, or this juvenile juggernaut will chase us off the streets and roads." Wallace proposed to hold parents directly responsible for actions of their children on the highways. In some cities, he said, bicycles are permitted on sidewalks -- increasing the hazards for pedestrians. (Washington Post.)

Long-Time What is believed to be the greatest long-time milk Milk Record production record in the history of American dairy farming was established by the Holstein cow, Steilacoom Prilly Ormsby Blossom, at the Western State hospital, Washington. The cow died in June, two and one-half months under 17 years of age. During her 14 lactation periods, including only 32 days of the fourteenth, she produced, according to testing association records, 258,209.5 pounds of milk containing 9557.48 pounds of butterfat. This was enough butterfat to have produced 11,946 pounds of 80 percent butter, and an average of nearly 10 tons of milk per year. During practically all her life as a producer this cow's production has been under the supervision of the Pierce County Dairy Herd Improvement Association. The first three lactation records were Advanced Registry records. (Washington Farmer, July 7.)

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Vol. IXX, No. 11

Section 1

July 18, 1938

U.S. HEALTH "The National Health Conference, first of its kind CONFERENCE and marking a new milestone in American medicine, opens in Washington today under the auspices of President Roosevelt's Interdepartmental Committee to Coordinate Health and Welfare Activities, of which Miss Josephine Roche, former Assistant Secretary of the Treasury, is chairman, " reports William L. Laurence in the New York "Called at the suggestion of the President, the conference brings together for the first time all the important groups vitally interested in medical care... The representatives of the American Medical Association have the opportunity for the first time to come in direct contact with not only members of the Committee of Physicians, but also representatives of those who need medical care and the public at large, to whom the problem of bringing adequate medical care within the limits of the individual's income is one of the most vital in life... The afternoon session today, at which Milburn L. Wilson, Under Secretary of Agriculture and a member of the Interdepartmental Committee, will preside, will be devoted to a general discussion of 'national health needs' ... "

PART-TIME About a third of the farmers of the United States FARMING have outside industrial and business income, it is indicated in a survey just released by the Census Bureau. As a result of a study of 3,000 farms in selected counties in 40 states, according to William L. Austin, director of the census, many "new and surprising facts" along this line have been discovered. "Among those which have hitherto not been called to the attention of the public," he said, "are the high proportion of farmers who have outside income, the relatively high average return for such farm operators -- equal to about three-fourths of the average income from the farms themselves and the difference between the incomes of those making farming their principal occupation and those whose principal occupation is banking, keeping store, professional service, and the like." (New York Times.)

Representative southern economists agreed Saturday
that this section faces and must solve grave economic problems, according to an Atlanta report by the Associated
Press. Dr. S. M. Derrick, economist of the University of South Carolina,
recommended: (1)modification of the tariff rates downward; (2) continuation of the policy of subsidizing agriculture to offset the disadvantage
to agriculture imposed by the tariff; (3) continued and increased federal
expenditures for soil and forest conservation; (4) adjustment of freight
rates to put the South on a parity with other areas; (5) federal support
of education.

Rural Social A. A. Smick, State College of Washington, writes on "Training for Rural Social Work" in Sociology and Social Training Research (August). The author says in the concluding paragraphs: "By means of a well-organized program of rural field work, graduate schools of rural social work could provide first-hand experience for prospective rural social workers and at the same time assume a role of leadership in experimenting with various types of rural agencies, in an attempt to determine what forms of organization and administration best fit the needs of the rural area. In this manner, graduate schools of rural social work could assume the role of leadership in developing social service agencies and resources that are typically suited to rural needs, just as the urban graduate schools of social work have assumed such a position of leadership in the large cities. Such a development would in no way duplicate the excellent work now being done by urban schools of social work, but would merely fill a need that is recognized by many leaders, in both rural and urban social work, for special training facilities for rural social workers. Well mannered and well planned, rural training centers would do much toward establishing rural social work on a professional basis. If they are not developed now, while the interest in the problem is at a high level, we may have to wait for another national emergency before we can hope to achieve such an objective."

The Lancet (London, July 2) says: "A few months ago Vitamin Value for Foods the issue of a monograph by Miss Katherine Coward, D.Sc., on the biological standardization of the vitamins provided an important milestone in the science of nutrition. Another has been reached with the publication of a new set of tables of the vitamin values of foodstuffs, in the compilation of which a very important principle has been applied. The tables are published as part of Vol. 7, Part 4 of Nutrition Abstracts and Reviews.... They have been prepared by two competent workers in the vitamin field of nutrition, Miss Margaret Boas Fixsen, D.Sc., and Miss M. H. Roscoe, Ph. D....Only those values have been admitted which have been obtained by chemical or spectroscopic methods, or by approved methods of biological standardization, that is, methods which include a simultaneous test against the international standard, and yield results expressed in international units. No values expressed in purely biological units of animal response have been accepted, and values obtained by converting such biological units into international units by means of a fixed conversion factor have been rigorously excluded as being too variable to be reliable. The tables are the first of their kind to embody this principle and they will be doubtless widely used in dietary surveys to work out the vitamin values of diets after the data have been collected in the field..."

"In a question asked recently in the (British) House Weather of Commons, relating to the stations and research staff of Forecasts the Meteorological Office," says Nature (London, July 2), "one referred to weather forecasts for a fortnight or longer, now being published in Great Britain and in Germany, and suggested that the office might supplement its present forecasts by such long-range predictions. In his reply, the Secretary of State for Air said: 'I am aware of the long-range weather forecasts being attempted by various methods in many different countries. These efforts are being carefully studied by the Meteorological Office, but so far none of the methods has attained the accuracy which would justify the issue of such forecasts in this country. This reply may not satisfy the public, which fails entirely to distinguish between weather forecasts based upon established scientific principles and observations, from prophecies of an astrological nature or any system which has not been submitted to a scientific society for disinterested consideration... In science it is not enough for an observer to satisfy himself that his investigations prove a principle, but the evidence has to convince other scientific workers before the principle is accepted. Until this has been done, any long-range weather forecasts published in the daily press, whatever accuracy is claimed for them, are altogether unworthy of being placed in the same category as the daily forecasts at present issued."

Yellowstone A new major construction project, now nearing comHighways pletion in Yellowstone National Park, is expected to add
materially to the comfort of the park's visitors this
summer, Superintendent Edmund B. Rogers reports. First motorists were
permitted to pass over sections of the new two-way Continental Divide
road from Old Faithful to West Thumb in June. The \$500,000 highway,
seventeen miles long, which crosses the Continental Divide twice, ends
the old one-way road system which was started when the first auto
entered the park in 1915. Now every highway on the Grand Loop system in
the park is open to travel in both directions. (Press.)

Exchange The first interchange of scientific exhibits between Exchange the United States and France, later to be extended to other countries, is being started with the shipment by the New York Museum of Science and Industry, Rockefeller Center, of a group of exhibits to the Palace of Discovery in Paris, it was announced recently by Robert P. Shaw, director of the museum. The exhibits, dealing with recent advances in physics, astronomy and biology, include six units showing research activities of the Carnegie Institution of Washington. The exhibits have been on view at the museum. Eventually it is hoped to expand it to include scientific institutions of as many countries as possible. (New York Times.)

"Agricultural Productivity and Pressure of Population" Population is the title of an article by Ellsworth Huntington, Yale Pressure University, in the Annals (of the American Academy of Political and Social Science, July). He says in conclusion: brief statement it has not been possible to present final figures as to the index of productivity and its relation to population pressure. Enough data are available, however, to make it clear that the problem of overpopulation cannot be fully understood without a very careful study of agricultural production, and of the relation of such production to climate on the one hand and to the advance of civilization and the growth of population on the other. The general conclusion to which we are led is that certain portions of the earth's surface are climatically doomed to be permanent areas of intense population pressure unless we discover new methods of overcoming the handicaps imposed by the weather."

"Express roads continue to develop and claim public Express Road Experiments attention." says Engineering News-Record (July 14). "No better demonstration of the demand for express roads can be found than the Governor Nice highway; but Pennsylvania's South Penn and Connecticut's Merritt Parkway are also timely examples, in their respective fields of use. Certain important problems remain unsolved in connection with express-road planning, however. The Governor Nice Highway brings some of them to view, at the same time that it attracts interest as the latest full-scale experiment on the critical question of need for roadside isolation. Maryland's new road is tangible proof of the extensive demand for road modernization: An old and badly congested road, too throttled by roadside development to permit of satisfactory improvement, had to be bypassed if a trunk route capable of serving modern traffic was to be provided. Through service rather than local service was at issue. The highway is designed to give capacity, safety, speed and freedom from traffic interruption in a degree not possible on most Long-established roads, and therefore in general requiring new routes. And finally the Maryland road demonstrates the acceptance won by dual road construction for main trunk routes. As an experiment on the need for freeway construction the Governor Nice road deserves countrywide attention. It is held by many that express roads must be planned on the freeway principle, that service to local traffic and roadside use is incompatible with service to through traffic. But the new Maryland highway has been built without physical separation from the abutting property. In very few years its service experience will show how well the efficiency of a trunk road can be maintained against roadside encroachment."

Egg Storage Food (London, July) contains a note on the vacuumcarbon dioxide oil treatment which keeps storage eggs fresh. This treatment was developed by Dr. T. L. Swenson, of the Bureau of Chemistry and Soils.

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Vol. LXX, No. 12

Section 1

July 19, 1938

CONSUMER

The Bureau of Agricultural Economics predicted yesDEMAND

terday that increased demand for farm products would

follow industrial recovery this fall. It expressed the
belief, in a review of the demand and price situation, that consumer income and demand for farm products had touched their low points and that
both should go up. It added, however, that business improvement might
be "somewhat irregular" and that consumer income and demand for farm
produce probably would continue to be less favorable for the rest of
1938 than in recent years. (Associated Press.)

NORTHWEST

Nearly 3,000 forest firemen spread from the Oregon
FOREST FIRES

California border to the northern outposts of British

Columbia yesterday in a fight against one of the greatest outbreaks of forest fires in the Pacific Northwest in recent years, says an Associated Press report from Seattle. The largest mobilization was on a 15-mile front, about 19 miles north of Longview, Washington, where an estimated 25,000 acres, mostly cutover land, already had been covered by flames.

DUCK HUNTING

After three years of 30-day open seasons and stringent REGULATIONS

regulations, duck hunters will have 45 days this year in each of the three zones under rules that also have changed the possession limit from one day's bag to two and legalized the taking of a few ducks fully protected the last two years. In the northern zone the season on ducks, geese, Wilson's snipe or jacksnipe, and coot opens October 1 and closes November 14. In the intermediate zone the season is October 15 to November 28, and in the southern zone, November 15 to December 29. Dates are inclusive. This season hunters may have three canvasbacks, redheads, buffleheads, or ruddy ducks in their daily bag of 10, or an aggregate of three birds of the different species. These birds have been on the protected list the last two years. The possession limit for these ducks is 6 of any single species or 6 in the aggregate.

JONES URGES

Jesse H. Jones, chairman of the Reconstruction FiBANK LOANS

nance Corporation, yesterday warned bankers that unless
they "did their part" in aiding business and the government through an effective lending policy, it might be necessary for the
"government to go further into the banking business." (New York Times.)

Section 2

In an article on the avocado, in Food (London, July) Avocado in the author, Harold J. Shepstone, says: "A fruit fairly new California to this country (England) but one which is gaining favor. is the avocado... A special body known as the California Avocado Association was formed to give practical aid to the growers in the cultivation of the fruit The Association recognized that it was essential to cultivate those varieties which produced the finest fruits, and which could be successfully cultivated in the soil and climate of California. The Department of Agriculture at Washington was appealed to, and sent Dr. Wilson Popenoe to make an exhaustive exploration of all the avocado districts in Mexico and Central and South America, in order to procure hardy and suitable varieties. He spent nine years roaming these countries, sending seedlings to California from time to time, and living meanwhile under the most primitive conditions. Dr. Popence laid for the young California avocado industry the best possible foundation. Today some fourteen varieties are being cultivated, these being the varieties which give most satisfaction as regards food value, taste, oil content, and appearance.... Today the avocado crop of California totals about 20,000,000 pounds..."

Holsteins "In Italy last year, 32 daughters of an American in Italy Holstein bull, imported from the State of Washington, gave a remarkable demonstration of improved production through breeding," says Hoard's Dairyman (July 10). "Starting a 343-day test at first freshening, these daughters showed an increase in milk production of 63 percent over their dams; and at second freshening, eight showed an increase of 119 percent. This exploit was described in the French publication, Vie Agricole et Rurale, and was recently commented upon editorially by the French dairy journal, L'Industrie Laitiere. bull was Carnation Producer sired by Sir Inka Superior Segis out of Carnation Prospect Parthenea, and a nephew of the famous Segis Pietertje Prospect, whose production record of 37,381.4 pounds milk stood as a world's all-time mark from December 20, 1920, to February 11, 1936, when it was broken by another Carnation Milk Farms cow, Carnation Ormsby Butter King... The tests of Carnation Producer's daughters, which the French journal characterizes as 'the most striking example of the practical value · of breeding we know of, were conducted under the official control of the Agricultural Institute of Rome."

Cuban imports for the first quarter of 1938 increased to \$33,466,000 from \$30,790,000 in the previous year, the Commerce Department reports. Imports from the United States showed a jump from \$20,918,000 to \$23,461,000. Exports from Cuba decreased in the same period from \$53,318,000 in the 1937 quarter to \$43,389,000. Exports to this country totaled \$34,408,000, as compared to \$47,811,000 for the same period last year. (New York Times.)

"Men in "During the last five years a new group of profes-Green" sional men has come to Missouri, a breed of men trained for the outdoors, " says an editorial in the Missouri Ruralist (July 9). "They are men in green. These men came with the creation of Federal forest areas and now there are many of them at work in this state. The trim green uniform of the forest rangers is a symbol of efficiency. They are doing good work. It has been the Missouri Ruralist editor's good fortune to travel the forest highways and climb the Ozark hills with the mangers and their supervisors and he has been impressed with the officiency of organization, the high type of manhood and the esteem in which foresters are held by residents. It was a fine thing for Missouri when Federal Forest Service came to this state. Millions of acres unfit for any purpose other than forestry now are under state and Federal control in Missouri. It is unfortunate that this work could not have begun 20 years ago. Had that been done we still would have some fine timber left. As it is, marketable trees have all but been destroyed and it will take a half century before the forests can be built back..."

Commercial A. Hatvany, Secretary, Inter-American Commercial Arbitration Commission, is author of "Building Commercial Arbitration Peace" in the Bulletin of the Pan American Union (July). He says in part: "The commission has laid a basis for educational work in its quarterly publication, The Arbitration Journal, which it issues jointly with the American Arbitration Association and the Chamber of Commerce of the State of New York. The Journal is published in English and a special section, devoted to inter-American arbitration, appears also in Spanish... Commercial arbitration is a large field and a comparatively new field. To those who see in it the large possibilities for preserving and bringing about friendly relations in international trade and through such trade the maintenance of peaceful and friendly relations between governments, it presents one of the most fascinating and promising subjects of modern times. Both the pioneers who during the past decades created the system of inter-American arbitration and the men who are now engaged in completing the system may justly be proud of this achievement. But it is the men who use it and who bring their disputes to arbitration who are actually the builders of good will, and it is through their good faith and cooperation that the edifice of commercial peace will be completed..."

Rural Sales

Daily average sales of general merchandise in small towns and rural areas in June were about 10 percent below those of June, 1937, but higher than for all other Junes since 1929, the Commerce Department estimates. The estimate, based on rural chain store and mail order sales, shows more than a seasonal increase from May to June, advancing the seasonally adjusted index 112½ from 110 in May, based on the years 1929-31 as normal. (New York Times.)

The increased use of vitamin rich foods, such as Vitamins for citrus fruits and fresh vegetables, has been found to in-Diabetics crease the effectiveness of insulin in human diabetes. Dr. L. E. Tetrick of the Department of Chemistry of the University of California made this report to the American Chemical Society. The diabetic patient is treated therapeutically with a diet which is restricted with respect to carbohydrates, fats and proteins. A diet adequate in these substances may still be deficient in vitanins. European as well as American investigators have considered diabetics as a group to be suffering from a lack of one or more of the vitamins. Vitamin deficiency in the human body eventually results in a condition where the life processes in the tissue cells are impaired with respect to their ability to store and utilize sugar, Dr. Detrick explained. Insulin administered to a diabetic patient deficient in one or more of the vitamins does not act as effectively as in the normal individual. Increasing the vitamin intake aids the activity of insulin even to the point where the amount administered daily may be reduced. (New York Times.)

Wax Protects "Promising results in the use of wax as a protective Stored Pears agent in pear storage are reported by Henry Hartman of the Oregon Experiment Station, " says the Oregon Farmer (July 7). "Professor Hartman has been conducting extensive research on ripening and storage of pears from Oregon, Washington and California for many years, jointly for the Oregon-Washington-California Pear Bureau and Oregon State College. He indicated in his report that after treatment by one particular wax, the laboratory pears displayed no visible wilt and had a fine, clear appearance at the end of the storage period. He also found that wax does not interfere with ripening. The unusual amount of wilt during the last season was general and not due to any specific storage method, it was found. Investigation indicated that growing conditions had been peculiar in that much of the fruit did not develop the normal amount of wax and the lenticels remained open even after harvest. Fruit in this condition is extremely sensitive to wilt, according to the experiment station, and will wilt even under favorable storage humidities..."

New Almond

The Pacific Rural Press (July 9) contains an article,

Varieties

"Two New Almond Varieties Are Released", by Milo N. Wood,

Bureau of Plant Industry, and W. P. Tufts, California

Experiment Station. The two varieties are the Jordanolo and the Harpareil.

An editor's note says: "After over 12 years of intensive breeding work

and selection, Milo N. Wood and W. P. Tufts have finally developed and

are now releasing two outstanding new almond varieties, both of them

softshells. Almond experts and dealers who have seen these new nuts are

enthusiastic over them and many say that they may revolutionize the

California almond industry."

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Vol. LXX, No. 13

Section 1

July 20, 1938

U.S. HEALTH A comprehensive and far-reaching national health pro-PROGRAM gram for providing more adequate distribution of medical care to the American people was submitted before the National Health Conference this week. The program was submitted to the President's Interdepartmental Committee to Coordinate Health and Welfare Activities by its Technical Committee on Medical Care. The program, the technical committee suggests, should be supported by the Federal, State and local governments, with the Federal Government contributing one-half the cost. The committee submits five recommendations. The first includes two items, expansion of the general public health services for eradication of tuberculosis, venereal diseases and malaria; the control of mortality from pneumonia and cancer, mental and industrial hygiene, and expansion of maternal and child health services. The second calls for provision of 360,000 new hospital beds in rural and urban areas and 500 health and diagnostic centers in areas inaccessible to hospitals. The third calls for the "provision of medical care for the medically needy". The fourth deals with a general program of medical care aimed to lighten the burdens of sickness for the self-supporting groups. The fifth deals with insurance against loss of wages during sickness. Dr. Irvin Abell, president of the American Medical Association, assured the conference of organized medicine's "wholehearted cooperation in any of the efforts which you make for betterment in the health care of the people of this country." (New York Times.)

FREIGHT RATE

The protests of two New England governors were added yesterday to northern arguments against a southern demand for lower rail freight rates on northbound goods, says a Buffalo report by the Associated Press. Governors Wilbur L. Cross of Connecticut and George D. Aiken of Vermont declared at an Interstate Commission hearing that northern industry would suffer if the proposed rates were put into effect.

N.Y. COTTON In sympathy with a strong stock market and an advance ADVANCES in foreign quotations, prices on the New York Cotton Exchange improved 8 to 9 points yesterday. Tension in the European political situation not only halted selling but stimulated foreign buying. Owing to uncertainty over the 1938 harvest, the decline of \$3 a bale from the high levels of the month created broader buying power on the setback to around 8 1/2 cents a pound for the October delivery. (New York Times.)

Moist Air "The 'moist air' concept of farm products," says Agricultural Engineering (July), "as developed in connec-Farming tion with its agricultural engineering implications by Arnold P. Yerkes in his recent address (published in this issue) as president of the American Society of Agricultural Engineers, is not so facetious or far-fetched as it may sound on first impact... " Mr. Yerkes says in part: "As methods for making more extensive and more efficient use of American air are developed and put into commercial use, it would be highly desirable if we could establish better control over the moisture needed to produce plants from the air. Agricultural engineers have already done some very commendable work in removing surplus moisture from wet land, irrigating dry areas, and regulating runoff to reduce soil erosion. Dr. M. L. Nichols has said that a great deal more work is needed on agricultural hydrology in connection with soil conservation measures. It seems probable that this work will have to be carried even farther, or perhaps it would be more accurate to say 'deeper', in attempting to learn more about the underground movement of water and controlling to some extent the levels of the water tables from which we shall need to pump irrigation water to insure a reasonable uniform supply of moist air for industrial uses... There have been sufficient instances where ponds and small lakes have been drained by boring into the soil to a water-carrying stratum to indicate that there is at least a possibility of diverting a great deal of water underground and perhaps controlling to at least some slight extent the water table levels. The success of W. W. McLaughlin, of the Bureau of Agricultural Engineering, with underground storage of water under some California conditions has been such as to indicate real

Wheat Sale The Supreme Court of Nebraska in June decided against the Federal Farm Mortgage Corporation, which had sought to by Insolvent attach 35 acres of standing wheat and 685 bushels in an Farmer elevator at Tecumseh, Nebraska, on an indebtedness of \$1,989 incurred by Arie Mulder on a farm mortgage. Mulder carried a federal land bank mortgage on his farm and in 1934 borrowed \$2,400 from the land bank commissioner, who took a second mortgage. He foreclosed this in 1936 and in 1937 bought the land in at foreclosure sale. While Mulder was still in possession in the fall of 1936 he sowed a crop of wheat. The next spring he moved to Lancaster County. When the wheat was ripe, he returned to Johnson County, harvested the crop and collected the proceeds as it was hauled away. Five days later the mortgage corporation sued out a writ of attachment, alleging that there was still due, after it had taken his land, the sum of \$1,989 and that Mulder was converting his property into money to avoid payment of creditors. The Supreme Court held that Mulder had a right to re-enter the premises to harvest the wheat he had sown when rightfully in possession. (Grain & Feed Journals, July 13.)

possibilities along this line in other sections."

The Journal of Documentary Reproduction (of which Documentary the spring issue is Volume 1, Number 2) is "a quarterly Reproduction review of the application of photography and allied techniques to library, museum and archival service." A note says: "The need for an independent, critical, impartial journal in this field, published on a cooperative non-profit basis, has been felt by scholars, scientists, archivists, librarians, editors, authors and other concerned groups. . The Editorial Board is assisted by members of several organizations interested in the scope of a professional periodical devoted to the use of photography and related processes in reproducing materials in print and manuscript form. Improvements and new procedure are appearing so rapidly that a central source of information is essential, particularly if science and scholarship are to receive the greatest benefits from the application of these means to definite educational ends."

Rural-Urban · Carroll D. Clark, University of Kansas, and Noel P. Gist, University of Missouri, are authors of "Intelligence Migrations as a Selective Factor in Rural-Urban Migrations" in the American Journal of Sociology (July). An abstract of the article says: "Thus far, studies of the selective influences of rural-urban migration have failed to control adequately the cultural factor. Such control was achieved in the study here reported by measurement of the groups to be compared when they were living in the same rural communities before migration had occurred. A sample of 2,544 high-school students was given a standard intelligence test in 1922-27. In 1935 residential data were obtained and the former students were classified as rural and urban. urban migrants were found to be superior as measured by the test scores, and their superiority was greatest in cities of metropolitan class. of-state migrants excelled the group remaining in Kansas. The results indicate that the urban environment is exerting a stronger pull upon the abler rural inhabitants of the state, though this selection does not necessarily have any genetic significance."

Up-to-Date "The dairy and poultry industries are fortunate in Statistics having in the Bureau of Agricultural Economics, men who show by their interest and efforts an active appreciation of the desirability of getting useful statistical trade information released at the earliest possible date, " says an editorial in the American Produce Review (July 13). "The tests of usefulness of current statistics indicative of present and prospective rate of production, rate of accumulation or distribution of reserves and rate of consumption are two-first their reasonable accuracy and second the promptness with which the information is made available... The B.A.E. has been fully conscious of the possibilities of improving its market statistical data and has gradually been amplifying it to the extent of its ability to turn out the extra work under its budget. The number of its weekly reports from country points on egg collections has been increased and its weekly egg-feed ration from the central western district is widely appreciated. The bureau is constantly planning to improve its service to the industry. Its continued efforts to make more complete the daily receipt compilations at leading markets are

to the point. This service merits the fullest and promptest possible trade cooperation in supplying the necessary data. Certainly one of the greatest current needs in this direction of expansion is a prompt perfection of arrangements for a weekly report of butter production from the local creamery areas of the Mississippi valley. This need is imperative. The thought also occurs that a weekly butterfat-feed ratio for the central west would be informative and valuable; and possibly a similar report from the large market milk areas."

Veterinary "Doctors of veterinary medicine have travelled a long Profession way since the days of the old 'hoss doctors', whom all the old-timers well remember, says an editorial in American Agriculture (July 16). "Many of the 'hoss doctors' of other times were good practical men, when it came to handling a sick animal, but some of them were quacks sadly lacking in scientific training. On June 9 the American Veterinary Medical Association celebrated its 75th birthday. The Association is justly proud of the record of service now being performed by well-trained veterinarians. It is estimated that animal diseases cost farmers annually losses of more than \$300,000,000. No one can say what the appalling loss would be were it not for the fight made by the veterinary profession, aided by State and Federal governments, to control and wipe out such diseases as bovine TB, mastitis and Bang's Disease."

Massachusetts

The Massachusetts legislature has passed a revision

Egg Standard of the general laws relating to the sale of eggs making

mandatory, with certain exceptions, the marking of the

carton or other container used with size designations as established in

the measure. Four classifications are provided, "large", "medium",

"pullet", and "pee-wee," each being defined. The new regulation becomes

effective September 7, and applies to sale in retail channels only. Whole
sale trading is exempted from the provisions excepting when eggs are packed

in cartons or other containers for resale at retail. Unsorted eggs also

are eliminated when marked "not sized." (American Produce Review, July 7.)

"Probably no industry has so many outstanding person-G. F. Warren. H. W. Mumford altties as that of agriculture," says an editorial in New England Homestead (July 2-16). "Many of them are associated with our great colleges of agriculture and for years have rendered yeoman service in their particular field of endeavor. Their work is not alone confined to their particular state, but has as a result of achievement, become national and international. We pen a final word of tribute to two great Americans who have long served agriculture and rural life and whose passing leaves general sorrow. The late Dr. George F. Warren of Cornell University was internationally known in the field of agricultural economics and as the foremost exponent of the commodity dollar. The late Dean Herbert W. Mumford for 15 years had served as dean of the college of agriculture of the University of Illinois and was widely known for his research work in the field of animal husbandry. Both men achieved fame. Both men were beloved by students, faculty and agriculturists in general. Their service to rural life will be an inspiration to all who were privileged to know them."

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Vol. LXX, No. 14

Section 1

July 21, 1938

RURAL POWER

The Rural Electrification Administration yesterday

embarked on its most extensive rural power program in

three years of operation, contemplating lending in one

year the entire \$140,000,000 made available by Congress against \$90,000,
000 loaned in its entire prior existence, says a report in the Washington

Post. Administrator John M. Carmody dispatched letters to officials of

100 projects in 15 states and to sponsors of new farm power plans calling

for state conferences and cooperation in expanding the program.

CHEMISTS

A special chemists committee to handle technical probCOMMITTEE lems arising under the new federal food, drug and cosmetic
act will be created by the Associated Grocery Manufacturers
to help members of the association, Paul S. Willis, president, announced
yesterday, according to a Chicago report by the Associated Press. The
meeting was called for the purpose of discussing the new law, and Charles
Wesley Dunn, counsel for the grocery producers' group, was the chief
speaker. "The new law will present many scientific problems during the
coming twelve months while regulations will be in process of determination," Mr. Willis explained, "and our association will be ready to deal
intelligently with this subject matter with the help of this special committee."

COOPERATIVE The Farm Credit Administration reported yesterday
ASSOCIATIONS that 16,000 farmers' cooperative associations are doing
\$2,750,000,000 worth of business annually, an estimated
increase of \$1,400,000,000 since 1932. Through 7,500 marketing associations farmers are selling everything from beef cattle to spinach, and
through 2,600 buying organizations are purchasing gasoline and oil, farm
machinery and supplies, fertilizers, clothing and food. In addition,
2,600 associations are offering their members insurance protection, and
there are other cooperative service groups for irrigation and the like.
(Associated Press.)

RAYON MILL IN Japan plans to erect a rayon pulp mill in Manchukuo,

MANCHUKUO utilizing soybean stalks and pods as raw material, the

Department of Commerce reports. The ultimate capacity of
the mill is put at 200,000 metric tons annually, although initially it
will produce only 20,000 tons a year. The plant is expected to cost about
\$2,900,000 and the equipment is to be purchased in Sweden. (New York Times.)

Civil Service The Civil Service Commission announces the following Examinations examinations: senior attorney, \$4,600, attorney, \$3,800, unassembled, and safety inspector, \$2,600, assembled, Bureau of Motor Carriers, Interstate Commerce Commission; electroplater, unassembled, \$1,860 (for appointment in Washington, D.C. only), Branch of Buildings Management, National Park Service; hospital librarian, \$1,800, assembled, Veterans Administration (vacancies in the position of assistant hospital librarian will also be filled as a result of this examination). Applications must be on file not later than the following dates: (a) August 15, if received from states other than those in (b); (b) August 18, if received from the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Interstate The aditor of the Agricultural Situation, in the July issue, says "the Bureau of Agricultural Economics, Trade Barriers cooperating with state agencies, is studying laws affecting interstate trade in farm products." George R. Taylor, in an article on barriers to interstate trade, says: "Three types of state legislation which are hampering interstate commerce in farm products include licensing requirements and taxes on out-of-state trucks; regulations dealing with weights, sizes and equipment of out-of-state trucks; and port of entry laws. A number of states collect no ton-mile taxes and make no attempt to require out-of-state private carriers to take out licenses so long as the truckers do not engage in intrastate business. But usually, the granting of such favors is dependent upon the conferring of reciprocal privileges by the other states concerned. Typical of the states in this group are Massachusetts, New York, California and Ohio. But a second group of states, at the other extreme, requires practically all out-ofstate trucks which come across the line to register and pay a fee, or to pay higher ton-mile taxes than domestic trucks. States in this group include Arizona, Kansas, Oklahoma and Wyoming. Many other states have laws which lie between these two extremes. Typically, they have strict general requirements as to the licensing of out-of-state vehicles which they appreciably liberalize through special reciprocity agreements with certain states. Representative states in this group are Florida, Colorado, Minnesota and Virginia. If only a few trips are to be made, the cost of securing out-of-state licenses may place a considerable burden on the 'foreign' trucker... State legislatures have been active in passing laws and authorizing administrative regulations dealing with the weight, size, equipment and insurance of motor vehicles. The variety and nonuniformity of these laws have constituted an appreciable hindrance to interstate commerce... The Interstate Commerce Commission, under authority of the motor carriers act of 1935, has issued regulations setting up uniform safety and equipment standards for interstate carriers. But legislation dealing with sizes and weights has not yet come under ICC control, and these laws continue to be a hindrance to interstate commerce. They effectively bar trucks which can operate in certain states from operating in others..."

Precooling of At a recent food preservation conference at Pennsylvania State College, D. F. Fisher, Bureau of Plant Indus-Fruits and try, spoke on the precooling and refrigeration of fruits Vegetables and vegetables in transit, "It is only comparatively recently," he said, "that buyers in distant/markets have appreciated the value of precooling sufficiently to absorb the cost on f.o.b. shipments. Their willingness to do this is perhaps the best demonstration that could be had of the role of precooling in insuring the satisfactory market condition of the produce upon arrival at destination... Without benefit of precooling and effective refrigeration in transit the enormous fresh fruit and produce industry of California, Texas, Florida and other regions especially favored by climate, soil and other natural advantages for production would be limited primarily to local markets... The effect of precooling in lowering transit temperatures and insuring better condition of produce upon arrival at destination is well illustrated in the case of Bartlett pears from the Pacific Coast... In 1933 when the Department completed its investigations on transportation methods for pears the freight rate from Oregon to Atlantic Seaboard markets was \$1.73 per cwt. for 26000 lbs. minimum load (the 520 box load) while for the 744 box load (36000 lbs minimum) it was reduced to \$1.55 per cwt. In all, the savings in transportation and transit refrigeration costs is estimated to amount to about 15 cents per box, which more than offsets the cost of precooling which at that time amounted to about 10 cents per box, when precooling was done in a cold storage, which was the common practice in the Pacific Northwest. of course must be added the increase in price due to the improved market condition of the fruit. The result has been the almost universal precooling of pears for long distance shipment and the elimination of most of the physical hazards connected therewith. Upon the basis of estimates made by leading pear shippers of the Pacific Coast the savings thus due directly or indirectly to precooling total upwards of a million dollars annually ... "

River The Ohio river, the Missouri, and the upper Mississippi Floods are neverlikely to be in excessive flood stages at the same time, the Weather Bureau says in a review of the destructive Ohio-Mississippi flood of 1937. The combination is practically impossible, the Weather Bureau explains, from the very nature of the storms that cause excessive floods in the Mississippi basin. Heavy rains in Mid-America all come from moisture moving in from the Atlantic, Gulf and Caribbean areas. The record-breaking rainfall that caused the disastrous and unprecedented Ohio river flood of 1937 resulted from a series of wave disturbances that concentrated rainfall in the Ohio Valley only. The Missouri and upper Mississippi basins got little rainfall at that time and were almost entirely free from the rain-making processes. Moisture-laden air from the Gulf and Atlantic moved northward and, becoming chilled by ascent over cold arctic air, precipitated its moisture into the Ohio valley. line or front separating the two air masses remained virtually stationary for several days at a time.

"Of significance to street and road maintenance engi-Iowa, Road neers is the trend toward what might be termed semi-stabilized Maintenance maintenance, " says an editorial in Roads and Streets (July). "Many miles of gravel or other low cost aggregate roads are the best available for certain routes. We take Iowa for our example because they have adopted a changed policy on maintenance of these roads. During the last two or three years they experimented, on a number of widely separated sections of gravel road on the primary state system, by maintaining those sections as semi-stabilized roads. This led to the policy of dustless, somi-stabilized gravel roads. All loose material on the road surface and all additions of new material through the season must be stabilized. Accurate gradation of aggregate and amount of binder is basic in this program. A deliquescent salt will be used to retain moisture. Michigan has followed this procedure with quite successful results. The motorist and the farm home family living along one of Iowa's new dustless gravel roads will appreciate the new maintenance policy. How the costs will work out are yet to be determined. Present results indicate the effort will be no more costly than by the old method."

Milk for The Journal of the Ministry of Agriculture (London, Calves July), in an item on a report on dairy research, says in one paragraph: "Of particular interest are the results reported from three separate centres of experiments designed to ascertain the relative value of raw and pasteurized milk for calves. Confirmatory results were obtained by each centre working independently and showed no significant differences in the effect of the two types of milk, either on growth rate or on the condition of the calves at the end of the experiment. But in post-mortem examination none of the calves fed on pasteurized milk showed tuberculosis lesions, while lesions were found in 65 percent of those fed on raw milk. A method called the phosphatase test has been evolved by workers at the Shinfield Institute for determining the efficiency of the process of pasteurization, and this has proved a valuable aid in the supervision of pasteurizing machinery. Work on the nutritive value of processed milks in comparison with that of the raw milk is now in progress at the Institute."

Food-Drug

The first seizures under the new Federal Food, Durg,
and Cosmetic Act have been made. On the recommendation
of the Food and Drug Administration, Federal District
attorneys at Milwaukee, Wis., and Houston, Tex., caused seizures of a
consignment of "Lash Lure The New and Improved Eyebrow and Lash Dye,"
manufactured by the Cosmetic Manufacturing Company of Los Angeles, Calif.
The Government alleges that this product is adulterated in that it contains a poisonous or deleterious substance — a coal-tar preparation,
paraphenylene diamine — which may make it injurious to users. Under
the new Food, Drug, and Cosmetic Act the interstate shipment of dangerous
cosmetics is immediately prohibited.

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Vol. LXX, No. 15

Section 1

July 22, 1938

U.S. SURPLUS

The Federal Surplus Commodities Corporation spent

COMMODITIES

approximately \$54,000,000 in the fiscal year just closed

to divert price-depressing crop surpluses from regular

commercial channels, the Agricultural Adjustment Administration announced

yesterday. More than \$45,500,000 was spent for more than 1,000,000,000

pounds of foodstuffs which were given to state and local welfare agencies

for distribution among relief clients. An average of more than 2,000,000

families a month received such aid, it is stated. Operation of diversion

programs to develop new uses and to open new domestic and foreign markets

for farm surpluses took the balance of the fund. (New York Times.)

WHEAT PRICES

Canadian crop damage reports led to a cent-a-bushel

AT CHICAGO

bulge in Chicago wheat prices yesterday, but late reactions of securities tended to cancel gains, according to an Associated Press report. Active buying of wheat futures was attributed largely to export interests, but only a small amount of European takings of United States wheat for actual shipment overseas could be confirmed. Some No. 1 hard was purchased at 73 3/4 cents, 4 1/2 over July price, the highest premium on the crop. According to some reports from Canada, black stem rust infection and grasshopper damage is spreading with almost unbelievable rapidity in southeastern Saskatchewan.

ALA. FOREIGN

Mobile's foreign trade zone, the second of its kind

TRADE ZONE

in the United States, was opened for business yesterday.

Foreign trade zones are so-called "free ports" and were
authorized by act of Congress in 1934. The first zone was opened in New
York City two years ago. The Mobile zone will be operated by the Alabama State Docks Commission. A trade zone is defined by the Government as
"an isolated, inclosed and policed area in which goods may be unloaded,
stored and, to some extent, processed—all without payment of duties or
intervention of customs officials unless and until the goods are entered
into United States customs territory." (Associated Press.)

WPA WORK

A new work program for the rural South to add 200,000

FOR SOUTH to the Works Progress Administration employees in that area was announced yesterday by Harry L. Hopkins, Administrator. Mr. Hopkins said the plan is to increase immediately present job quotas in areas where crops have been laid by and harvesting not yet begun. The workers will be released for harvesting and then reassigned.

(New York Times.)

Insecticides. E. Fajans and H. Martin (J. Pom. and Hort. Sci., 16. 14; 1938), in continuation of their work on the physico-Fungicides chemical properties which determine the retention of spray fluids and the tenacity of spray deposits, have examined sprays consisting of emulsions (liquid/liquid systems) and of added suspensions (liquid/liquid/solid systems). The initial retention of emulsions was found to be determined by the properties of the aqueous phase and intermediate between that of the emulsifier solution alone and that of water. Preferential retention of the oil phase increases as the emulsifier concentration is reduced, and is dependent on the character of the latter. Retention of emulsion-suspension systems is markedly affected by the extent of interaction between the emulsifier and the solid phase, which results in partial or complete adsorption of the oil phase by the solid, which is flocculated to large agglomerates. The stability of the emulsion is thus reduced with consequent increase in the extent of preferential retention of the oil phase followed by preferential retention of the solid phase. The tenacity of deposits from emulsion-suspension sprays is favourably affected by the presence of oil but may be reduced by the emulsifier, for example, sulphite lye. Owing to the necessity for using sprays of high stability, only emulsion-suspension systems showing little or no interaction between emulsifier and solid can be recommended for practical use. Sulphite lye is the most suitable from this point of view, and its unfavourable effect on tenacity may be reduced by reducing its concentration. (Nature, July 9.)

Rural Representatives of European countries are to meet in a conference summoned by the League of Nations for Hygione July, 1939, to consider the subject of rural planning and hygiene. The Council of the League, amid the graver preoccupations of its recent session at Geneva, approved the report of the preparatory committee for the conference, which has been sitting under the chairmanship of M. Wauters, Belgian Minister of Public Health. A similar conference in 1931 has exercised a considerable influence on the organization of public medical and assistance services in the rural parts of European countries but it remains to extend the study to diseases which are still all too frequent in rural areas, such as typhoid and tuberculosis, together with diseases which affect both human beings and livestock. The conference will have at its disposal further studies carried out on the international plane by the Health Organization relating to sanitation, the cost and efficiency of medical and sanitary assistance, prevention of disease, and the 'medico-social protection' of the rural population, by which last is meant nutrition, housing, and rural planning. The Health Organization has lately been undertaking, in conjunction with public health authorities, national nutrition committees, and European institutions and schools of hygiene, some further studies on nutrition, in order to ascertain the effective consumption of particular groups of

populations, to consider whether their dietaries are sufficient, and to evolve measures for combating defects. These studies have taken place in Belgium, France, Finland, and half a dozen other European countries. League countries which have national nutrition committees include the United Kingdom, with Australia and Canada among the Dominions, France, Belgium, Holland, Soviet Russia, Poland, Czechoslovakia, Latvia, and all the Scandinavian countries; also, outside Europe, Egypt, and Iraq. The first meeting, held in February, 1937, derived great benefit from the participation of a representative of the committee recently set up in the United States, and it was decided to invite an American representative again to participate in the forthcoming discussions. (British Medical Journal, July 9.)

Economy in J. J. Skinner, of the Bureau of Plant Industry, is author of the leading article in American Fertilizer Fertilizers (July 9) -- Our Money's Worth From Fertilizers. He says in the concluding paragraphs: "In order to reduce plant food cost, first, the plant food content of the fertilizer should be increased as much as is consistent with sound agronomic practice. The plant food content should be increased to 20 or 25 percent. Experiments of agronomists and soil experts have shown this to be good practice and some successful farmers have used these higher analysis fertilizers with very good results. New and better concentrated materials are being developed all the time which are being used more and more. Fertilizers, such as 3-8-3, should be discarded. They are too expensive. Second, the plant food in the fertilizer should be secured from low cost sources when such sources produce satisfactory results in the field. For most crops and soils the use of expensive organics in fertilizers is unnecessary and uneconomical. Great changes have already taken place in the type of nitrogen-bearing materials used in most manufactured mixed fertilizers. In 1910 statistics showing that 55 percent of the nitrogen in mixed fertilizers came from natural organics, while in 1936, anly 15 percent came from these sources. New fertilizers can be formulated, almost without exception, so that the low cost sources of nitrogen, phosphoric acid and potash give as good results in the field as more expensive naterials. Experiments by agricultural scientists have shown that the use of these low cost materials, when properly formulated, is good practice also. If these two principles were followed by farmers when buying fertilizers, they could certainly reduce their fertilizer bills 10 to 20 percent. In a single State, like North Carolina, this would be a savings of approximately \$4,000,000. The cost of putting manufactured mixed fertilizers on the market can also be lowered by other measures such as reducing the number of fertilizer grades or formulas manufactured. Regulations in some States control this."

Sanborn Field
50 Years Old
A plaque at Sanborn Field, Missouri Experiment Station, says: "This experiment field was established in 1888, by J. W. Sanborn, Director of the Missouri Experiment Station. The experiments include comparisons of various cropping systems and of different fertilizing materials. This is one of the oldest experiment fields in the United States and is of special scientific value because of the long period of experimentation."

Weather wheat, cotton and corn, is now under intensive study at three typical stations for these crops, Charles F. Sarle of the U. S. Department of Agriculture announces. Winter wheat is being studied at Manhattan, Kan.; cotton at Florence, S.C., and corn at Ames, Iowa, according to Science Service. The general procedure outlined in the plan is to measure the effect of various combinations of environmental conditions upon yield, as expressed through each attribute of yield, such as stand, number of grains or bolls, total weight of the crop for a given area, etc. Much closer measurements, both of the crops themselves and of the constantly changing weather conditions, are being found necessary to get results that can be made of value in terms of better adaptation of crops to climate. (Press.)

Heat Protects Valuable plant specimens in the museum of the Specimens Catholic University of America in Washington are protected against destruction by insect pests without being treated with poisonous or explosive chemicals, hitherto used in all leading herbaria. The insects and their eggs are literally cooked to death, yet without damage to the specimens. The method was devised by Dr. Hugh O'Noill, botanist of the university. Dr. O'Neill puts specimen sheets into a double-walled steel cabinet lined with asbestos and fitted with a tight door. At the bottom of the cabinet is a pair of electric heaters, controlled by a thermostat. Temperature is raised to 140 degrees F. and kept at that point for several hours. A tank of water in the cabinet prevents the contents from becoming too dry. The heat penetrates even such things as acorns and fleshy fruits and kills insect eggs and larvae in them. Dr. O'Neill and his colleagues have used the treatment on nearly a quarter of a million botanical specimens. Insect depredations in the university herbarium have been stopped. (Science Service.)

Farm Implement News (July 14) in an editorial on Lighter Farm Machinery lighter machines, says in part: "The existence, capabilities and limitations of small rubber-tired tractors are establishing new requirements for field machines, and one of them is that they be light enough, and not necessarily smaller in proportion, to be pulled by the small tractors that farmers are buying and will continue to buy. Any machine can be made lighter by either or both of two methods. One is to design with fewer parts, but this often is impossible. other is to make many of the parts out of high-tensile steels that will have the same strength with less weight. Sometimes, this lighter more expensive material entails no additional cost, the increased price per pound being offset by the lesser number of pounds needed. The increased use of small rubber-tired tractors will make lighter field machines an objective of engineering development. Hence many of the materials, practices and factory methods of this industry that have not changed much in many decades will be subject to revision. Manufacturers will be buying more expensive grades of steel, it may be a little harder to 'work' in the factory, but the ultimate cost to agriculture will be less."

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Vol. LXX, No. 16

Section 1

July 25, 1938

WORLD WHEAT, A world record in wheat production and a near record STEM RUST in world wheat supplies are indicated for the 1938-1939 crop year, the Department of Agriculture announced Saturday. World production, excluding China and Soviet Russia, is tentatively put at about 4,200,000,000 bushels, 375,000,000 above last year and slightly larger than the previous record crop of 3,996,000,000 in 1928, the department said. Prospective world supplies for the year begun on July 1 are estimated at 4,850,000,000 bushels, about 475,000,000 above those for 1937-1938 and exceeded only by supplies in the year 1930-1931. World carryover of old wheat was estimated on July 1 at around 650,000,000 bushels, or 100,000,000 bushels more than a year earlier. (Press.) Stem rust of wheat developed rapidly last week on Ceres and Marquis wheats in North Dakota and northeastern Montana, the Bureau of Entomology and Plant Quarantine reports. A conspicuous feature of rust development this year is that the epidemic extended northward and westward from the hard red winter wheat area but not northeastward as in 1937. There will be serious loss in many fields of Marquis and Ceres in North Dakota and eastern Montana. Thatcher, which is planted extensively in Minnesota and the eastern Dakotas, is maturing relatively free from stem rust.

REGULATIONS food and drug act were promulgated Friday by M. L. Wilson, Acting Secretary of Agriculture. The new act denies the channels of interstate commerce to dangerous drugs, injurious cosmetics and inadequately tested drugs. In announcing the rules the department noted that their issuance had been delayed because of hearings, and officials said they would welcome constructive suggestions as to necessary revisions. Hearings will be held in case revisions are found necessary, although the law does not specifically require such hearings. (Press.)

COTTON POOL

The cotton producers' pool established in connection
LIQUIDATION with the first AAA program is ready to start buying up
all outstanding participation—trust certificates in order
to liquidate the pool's activities, the Department of Agriculture announced
yesterday. Printed forms to be used by certificate holders in tendering
their certificates are being forwarded to agricultural agents in all counties where they are outstanding. (Press.)

The Montana Farmer (July 15) in an editorial on farm Montana conditions in Montana, says: "Hills normally browning at Farming this season are still green clear to the top. Grass is knee high on some of the ranges that were pretty well burned up last year. Sheepmen who were desperately short of feed a year ago are having trouble losing lambs in the tall grass. Waving fields of grain may be seen in all parts of the state. Summer fallow that will produce next year's crops has been soaking up the valuable moisture. Irrigation farmers have not had to irrigate as often as usual, although the repeated rains have made haying difficult. Water holes and reservoirs are full to overflowing and springs that have been dry for years are running again. Montana soil is demonstrating once more its wonderful productivity and its prompt response to moisture. With this renewed demonstration of the value of water let us continue to conserve moisture in every possible way, through proper tillage and the development of dry-land reservoir possibilities, and through the full utilization of irrigation resources. A study of long-time weather records affords considerable basis for the hope that the period of abnormally dry years has come to an end..."

Slaughter Slaughter supplies of lambs during the late summer Lambs and fall are expected to be larger than a year ago, the Bureau of Agricultural Economics says. Indications point to a much bigger lamb crop this year than last. Supplies of grass-fat lambs are now beginning their seasonal increase. The number of lambs slaughtered may be increased also by the larger proportion of fat lambs in supplies from the late-lambing areas of the western sheep states, and by a probable weak demand for feeder lambs.

Japanese Japanese have penetrated into Brazil in the last in Brazil decade until in the state of Sao Paulo they comprise nearly one-fifth of the population, Prof. Preston E. James of the University of Michigan reported recently to the American Geographical Society through its Geographical Review. The Japanese immigrants are engaged in market gardening and cotton growing. On only 1.77 percent of the agricultural land, they raised 46 percent of the cotton crop and 29.5 percent of the agricultural products. (Science Service.)

Cotton-growing experiments by Italians in Abyssinia

Italy have been successful and Italy will no longer have to
import cotton from abroad, according to a report from

Cairo to the Department of Commerce. The information which reached

Cairo caused some concern to Egyptian growers, since developments in

Abyssinia make probable a new competitor for Egyptian cotton, the report

said. It was reported in Cairo that the cotton growing in Abyssinia was

backed by the Italian Government, which has appropriated \$1,300,000 to

aid the project. (Press.)

Cold Storage

The Dakota Farmer (July 16) in an article on cold

Lockers

storage lockers, reports that in Mississippi "nearly
\$300,000 worth of cold storage plants have been erected

by the Mississippi State College. These locker systems are built of

native stone, concrete and brick, and have a combined meat-curing capacity

of more than a half million pounds. A special feature of their plants is

air-tight rooms for destroying insect pests. Mississippi's plants not

only permit the farmer to cure his meat at any period of the year and

hold his perishable produce for the best market, but they also furnish

permanent employment for many persons. The establishment of these plants

does away with backyard methods of butchering hogs, as all hogs are

slaughtered and dressed at the plant under the direct supervision of the

college Extension Service..."

"... Artificial insemination offers the most promising Artificial Insemination method apparent at present for advancement in breeding better livestock," says the Western Livestock Journal (July 12). "It makes possible greater use of proved sires, and the improving influence of a good sire can be multiplied several times. One of the checks in the past has been the fact that by the time a sire was proven, his use was limited. Dr. C. L. Ranney of Santa Ana, California, has been making a practice of buying good young registered bulls, using them on a few cows, and then retiring them to a bull pasture until their daughters come in milk. This system uncovers sires whose daughters are better than their dams, and by artificial insemination, he plans to breed the bulk of his cows to proved sires only. In the future, it may be possible to see herds of several hundred cows, all sired by the same bull. In New Jersey, an artificial breeding society has been formed, with about 99 farmers enrolled. Participating fee is \$5, required for the purchase of equipment and the maintaining of a bull. A qualified veterinarian handles the work. Denmark has made much progress with artificial insemination.....The Elite Breeding Society of Sams. percent better record of conceptions than by natural means. These cows were owned by 220 different farmers."

U. S. Dairy

New York State farmers now market about \$64,000,000

Cooperatives worth of dairy products a year through cooperative associations, according to a national survey of dairy cooperatives by the Farm Credit Administration. The state is third in the list of five which market more than \$500,000,000 worth of milk, butter and cheese in this manner, the report states. Heading the list is Wisconsin with a \$79,000,000 annual business, while Minnesota is next with sales exceeding \$77,000,000. These two states specialize on the butter business, but New York cooperatives' chief output is fluid milk for the New York market. (New York Times.)

First Junior "The Wisconsin State Fair. State Fair Milwaukee, August 20 to 28, again leads the nation by presenting the first event of its kind-the Junior State Fair," says Wisconsin Agriculturist (July 16). "This new institution now brings together the important youth organizations of the state, both city and rural, in a common program for the betterment of Wisconsin's agriculture and industry. The co-operating organizations are: 4-H Clubs. Future Farmers of America, Junior Homemakers, Farmers' Equity Union Juniors, Boy Scouts, and Girl Scouts.... Visitors this year will find the Junior Fair a complete fair within a fair. Plans call for beginning work, immediately after this year's fair, on the first unit of four new buildings in a long-time construction program. A beautiful array of 85 educational booth exhibits will be one of the outstanding features in the Junior Fair building this year. Under a new system of judging, each booth will be rated as excellent, good, or fair, and awarded \$20, \$17.50, or \$15 respectively....Entries this year in the livestock and poultry departments are expected to top the 1,700 mark, more than 600 over last year's 1,100 4-H entries, largest in the history of the fair..."

Hog-Price Indications of a more favorable outlook for consumer Outlook demand for meats and larger market supplies of hogs are the chief factors in the hog price prospects as reported in the summer outlook issue of The Hog Situation, by the Bureau of Agricultural Economics. These developments pertain to the 1938-39 hogmarketing year, which starts October 1. For the rest of the present marketing year, ending September 30, slaughter supplies of hogs probably will be larger than a year earlier, although seasonally smaller than in late spring and early summer of this year. Larger marketings this summer than last will be offset by the smaller storage stocks of pork and lard. Hog prices may go up further this summer as supplies are seasonally reduced, "but they are not likely to reach the high level of last summer".

Blowers for In a paper, "Blowers for Frost Protection," in AgriOrchards ... cultural Engineering (July) the author, Ben D. Moses,

University of California, says in the last paragraph:
"It is my opinion that (1) under conditions of temperature inversions of
10 degrees in 100-foot elevation, air temperatures in orchards may be
maintained 3 degrees higher, with a blower mounted on a tower 40 to 50
feet above the ground; (2) blowers of 75-hp. size will not handle over
10 acres, excepting under conditions of favorable air drainage; and (3)
it may be possible to effectively combine a blower with orchard heaters."

Millionth

"Word comes from the Farm Credit Administration office

FCA Loan at Louisville, Kentucky, that the millionth loan of the

nation-wide production credit system has been made to

Harley M. Moore of Cass county, Indiana, says an editorial in Prairie

Farmer (July 16). "It is interesting to note that this is his fifth loan

made through the local Production Credit Association, which means that

four previous loans have been repaid..."

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Vol. LXX, No. 17

Section 1

July 26, 1938

WHEAT PRICES. Tumbling nearly 2 cents a bushel maximum yesterday, R.R. MOVEMENT wheat prices at Chicago smashed down to bottom levels unreached before in five years, says an Associated Press report. Serving to force values lower was a huge increase of 18,034,000 bushels in the United States visible supply total. Forecasts of record world wheat production this season, together with official suggestions that this year's exports from the United States would be smaller than those of last year, acted also as weight on the market. At the close, Chicago wheat futures were 1-1/8 to 1-5/8 cents lower compared with Saturday's finish; September 67-7/8 to 68 cents, December 70 to 70-1/8 cents. A report in the New York Times says the railroads are establishing records in the transportation of the winter wheat crop to market, according to an announcement by the Association of American Railroads. "Handling of winter wheat this year at Kansas City has set high records," the statement said. "Receipts at that point in the week ended on July 8 were 9,714 cars, a new record. Over the Fourth of July week-end, 3,605 carloads of grain were received in Kansas City. In the following week, 8,943 carloads of grain were received and through overtime work at mills and elevators, 8,803 cars were unloaded..."

FOREIGN TRADE The increasingly favorable trend in the foreign BALANCE trade of the United States was shown by a net balance of merchandise exports of \$631,074,000 for the first half of 1938, the Department of Commerce reported yesterday. This export balance, which stands in sharp contrast with the import balance of \$146,859,000 in the first half of last year, was the largest for any corresponding half year since 1921, the department said. "Trade statistics for the first half of 1938 suggest," the report said, "the important extent to which exports have assisted in maintaining employment and purchasing power in the United States in this period of depressed domestic business..." (New York Times.)

WESTERN

Flames ate rapidly through timber on the Warm Springs

FOREST FIRES

Indian Reservation in Jefferson County, Oregon, yesterday,
but a prediction that the prolonged heat spell was about

to end brought a measure of hope to the fire-harried Pacific Northwest.

Marching unchecked before a high wind, the Warm Springs blaze has

covered 80,000 acres and destroyed a fourth of the reservation's pine
timber stand. The Scattle Weather Bureau held out hope that temperatures

would return to normal today. Twenty-six new fires were reported in

Douglas County, Oregon. (Associated Press.)

12 Years of Richard C. Davids, in The Farmer (St. Paul, July 16) Dairy Tests in an article on dairy herd testing, says: "One of the most outstanding illustrations of persistent production over a period of years is a herd of Jerseys owned by Frank B. Astroth (Bryn Mawr Farm) of Dakota County, Minnesota. This herd has just finished its twelfth consecutive year of butterfat testing with a record that ranks the herd high in dairy circles. Twelve years ago, in 1926, Mr. Astroth began testing his cows, and finished with a herd average of 344 pounds, just twice the average for cows in the Northwest. Next year the average rose to 360 pounds, an encouraging increase. With only 1 exception, each year boosted the average higher. Finally, in 1937, came the banner year, climax to years of feeding practice, selective culling, and careful breeding, with the remarkable average of 522.42 pounds of butterfat for 27.42 cows. This exceeds last year's high herd in the state by 50 pounds, and is just 3 times as much as the average cow in the state."

Long Island "There will be general commendation of the plans of Roadsides the roadside committee of the Long Island Association, not only to remove unsightly billboards, dilapidated structures and other man-made scars upon the face of nature, but to plant and further beautify the roadsides in Nassau, Suffolk and Queens County," says an editorial in the New York Times (July 22). "The efforts of this association, made up of members of garden clubs and other public-spirited citizens, already have borne much fruit in restoring and augmenting the natural beauties of the Long Island landscape. Rapid development of suburban communities, often accompanied by ruthless destruction of trees and stripping of the topsoil by builders whose eye has been upon narrow and immediate profit rather than long-range benefits to the community, has made sad invasions of this naturally lovely scene. The landscaping of the parkways under the direction of Commissioner Moses has shown on a large scale what can be done and set a good example for less ambitious efforts..."

Japanese

A picture of an advancing horde of Japanese beetles

was presented to Federal and State agricultural experts

recently during a "beetle tour" of Maryland's worst-infested
(Cecil) county, says an Elkton report by the Associated Press. Approximately one hundred delegates saw huge piles of the dead insects, millions of live ones feeding on corn, apples, soybeans and other crops, and whole fields blighted and ruined by the half-inch green and copper colored pests. On two farms alone more than 20,000,000 dead beetles—captured and trapped and burned, "stewed" alive or piled in sacks to die naturally—presented an object example of experimental means of exterminating the menace.

Dr. Ernest N. Cory, Maryland State entomologist, warned the visiting farmers that the beetle plague was moving slowly down—State at the rate of about ten miles a year.

Assay and Dr. Hazel E. Munsell, of the Bureau of Home Economics, Sources of is author of one of a series of articles on vitamins in the Journal of the American Medical Association (July 16).

She says in the concluding paragraphs: "A consideration of the importance of various untreated foods is a small part of the story of the food sources of any vitamin. A natural food may be a perfectly good source of a vitamin and yet before it comes to the table be subjected to such treatment that little or none of this factor is left. Vitamin A is less likely, perhaps, to be lost or inactivated during procedures of manufacture and preparation at home than some of the other vitamins, since it is fairly stable to heat and not appreciably soluble in water. It is destroyed, however, by oxidation, and foods that are heated for long periods show appreciable loss of vitamin A potency. It is not affected at the temperature of boiling water, so that foods cooked by boiling retain their vitamin A potency well. Canned foods have practically the same vitamin A value as the corresponding fresh foods. Canned products that have been stored for as long as from nine months to a year and in some cases for even longer periods still retain a large portion of their vitamin A potency. The storing of foods in the frozen state offers one of the best methods of retaining the maximum vitamin value. The vitamin A value of frozen foods is for all practical purposes the same as that of the fresh products; provided, of course, that this statement is construed to apply to the frozen product, or the defrosted product immediately after defrosting, since there may be a rapid loss of vitamin A value if the defrosted food is allowed to stand. Dried, or dehydrated, foods show considerable loss in vitamin A content due, undoubtedly, to oxidation of the vitamin during the drying process. Dried products may show a further loss during storage. Most foods in their natural state that are susceptible of storage for any length of time may be stored as long as from nine months to a year without serious loss of vitamin A value, and any loss taking place is very gradual."

AAA Corn O. V. Wells, Agricultural Adjustment Administration, writing on the corn stabilization program in the Agri-Program cultural Situation (July) says in the concluding paragraphs: "The program should (1) stabilize supplies of corn available for domestic consumption and export, (2) raise and stabilize the price of corn relative to what could otherwise be expected, and (3) raise and stabilize the incomes of corn and livestock producers, especially in the Corn Belt. To the extent that corn and livestock production are stabilized. farmers should tend to receive a somewhat greater cash income, even apart from such direct payments or grants as they may receive under the program. In addition, stabilization should lower costs of production through some reduction in labor and equipment costs as a result of closer adjustment of corn and livestock production to market demand, through the incentive toward more efficient feeding which a firm corn price would provide, and through such gains as may accrue from the conservation of farm land."

Rain, Flood Serious damage to crops, particularly potatoes, was reported this weekend by officials of the New Jersey State Control Department of Agriculture as a result of the heavy rains. Truck farms suffered heavily in Warren County. Berry and potato crops were damaged by the leveling of ridges and swamping of bushes. It was feared the canning crop, which needs dry weather, might suffer. Dr. Linwood L. Lee, State Co-ordinator of the Soil Conservation Service, reported from Freehold, N. J., that erosion control measures in that area had proved themselves "under tests of practically maximum severity." More than thirty miles of broad-base terraces have held soil erosion to a minimum, Dr. Lee said, despite a week of downpours. "We have had no failures in terrace systems," he said, "and only very slight silting of terrace channels. Severe erosion and a considerable amount of gullying may be seen on fields which have not been terraced. Fields on which strip cropping has been applied look very good compared with similar fields which are still being cultivated without regard to the slope." Other measures, such as grassed waterways and terrace outlets, mulching and sod crops in orchards, and earth-filled dams at the heads of old gullys. have also proved their value. (New York Times.) While parts of New York State were recovering from the effects of floods, a forest ranger found evidence that New York forests are "coming back" and are once more beginning to regulate floods and drought, says an Associated Press report. Oscar Lindberg, chief ranger of Allegany State Park, said that the State's young artificial forests were holding back water. Since 1921 New York State has been planting millions of young trees. These now have grown tall enough--10 to 12 feet--so that their dense roots are beginning to store up rainfall in the ground. He added that rangers. looking out from the State's tall fire towers, now see hundreds of acres of young forests where only barren farmlands lay a few years ago. Allegany State Park is only one of numerous regions in which the State has planted trees. Municipalities, farmers and 4-H Clubs have joined the program of reforesting the State.

Dominion "Throughout the Dominion crop prospects remain good, Crop Report with weather that on the whole has continued to be advantageous, though in some districts damage from lack of moisture is reported," the Bank of Montreal states in its current crop report. "Grasshoppers, rust and hail have taken a certain toll of grain on the prairies and in Quebec and Ontario army worms have appeared, but so far such damage as has occurred has been of a local nature. In the prairie provinces, while grain crops are somewhat backward, they promise an abundant yield, although to maintain present prospects good rains over wide areas are required. In Quebec the hay yield is proving satisfactory and all other crops are doing well. In Ontario the prospective yields of all the main crops are above average." (Washington Star.)

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Vol. LXX, No. 18

Section 1

July 27, 1938

WHEAT AT

For the second time in 48 hours, the Chicago wheat
5-YEAR LOW

market yesterday fell under five-year low records. The

newest tumble amounted to about a cent a bushel, with rallies following that partly overcame the losses. Increased selling because of new crop movement facilitated the price downturn, but then purchase orders developed better volume. A report that much of the late
wheat in spring crop areas both sides of the Canadian boundary would be
subjected to probable black rust and grasshopper damage was responsible
for a good deal of buying as the day drew to an end. At the close Chicago
wheat futures were 1/8-1/2 cent lower compared with day before yesterday's
finish; September, 67 5/8 to 67 3/4 cents; December, 69 5/8 to 69 3/4
cents. (Associated Press.)

U.S. TRADE IN Expansion of American trade in South American counSOUTH AMERICA tries, especially in heavy goods products, will be encouraged by the Administration through redoubled efforts
of the Export-Import Bank, which heretofore had concentrated its activities in the European field, it was learned yesterday. The disclosure last
Saturday that the Export-Import Bank had agreed to discount notes of the
Haitian government to finance its public works program, estimated to require \$5,000,000, is only one of a number of important transactions in
which the bank will participate. The bank is expected to disclose soon
the completion of negotiations for the sale of American railroad equipment
manufacturers of a substantial order for rolling stock to Brazil. Unsettled political conditions in Europe, trade barriers and exchange restrictions have reduced the activities of the Export-Import Bank. (Washington
Post.)

OREGON FIRES

A raging brush, grass and virgin timber fire on the

Warm Springs Indian Reservation (Oregon) spread over 100,000

acres yesterday and menaced rich pine stands and wheat lands. Two men who
flew over the area said the fire was uncontrolled on the southwest front.

(Associated Press.)

TENANT Leon H. Adams received formally yesterday a \$5,050 loan from the Federal Government to become the first tenant farmer in the Northeastern States to buy his own land through aid from the Farm Security Administration, says a Burlington (N.J.) report by the Associated Press. Mr. Adams for the first time in his 49 years was owner of his own farm, 46 acres of vegetable and fruit land and an 8-room frame house.

Hospital The Journal of the American Medical Association (July 16), in an item on "What is Adequate Hospital Service Service?" says: "Much depends on whether the population is rural or urban, on the type of housing which prevails, on the availability of servants, on the habits of the people and on the degree to which they have become accustomed to the idea of hospitalization for minor illnesses... Another method of appraising the adequacy of hospital service is based on geographic distribution. In this issue of The Journal is a map of the United States which shows in white all those areas which are within thirty miles of a registered hospital; the remainder of the country is shown on the map in black. The black areas are chiefly confined to the Rocky Mountain areas and adjacent territory. In the United States 98.5 percent of the people live within thirty miles of a hospital."

Store Your "Farm and Ranch again calls attention to the large crop of feedstuffs already produced in the Southwest, or Feedstuffs in the making," says an editorial in the July 15 issue. "Many have already sold their oats at the thresher as low as 15 cents per bushel, a price under the cost of production. Grain sorghums give evidence of abundant yields, and again we will have low cash prices. Oats can be kept indefinitely. Trench silos will take care of grain sorghums, sweet sorghums, Sudan, alfalfa and other feedstuffs. Corn and other grains can be so stored and treated that weevils will be kept out indefinitely. Why sell at below cost of production and then produce another crop next season? Better save what you have produced as an insurance against next season. There are 10,500 trench silos in Texas and large numbers in Oklahoma, Arkansas, Louisiana and New Mexico. The number could be doubled and still not be overdone. Past experiences should be a warning. There have been years when drouths have reduced pastures and feed supplies to such an extent that animals were starved. There is no reason for a recurrence of such conditions. If Southwestern farmers would take advantage of abundant productions in good years and store for use in years of low production, it would iron out the peaks and valleys of farm income and make for a more permanent form of prosperity."

Cattle Price

The outlook for cattle prices during the late summer Outlook

and fall months has been "somewhat improved", the Bureau of Agricultural Economics reports. The brighter outlook is attributed to the prospective pick-up in business activity and consumer demand. It seems likely the seasonal advance in prices of the better grades of slaughter cattle will be "more marked and longer sustained" than expected earlier. It was pointed out, however, that the prices of the better grades are not likely to reach the unusual high of late; summer and early fall last year.

. Cattle Hide Enough has been written and spoken on the subject of the losses which livestock growers and feeders suffer Damage through damage to meat carcasses through the bruising of animals in handling so that everyone should be more or less familiar with the tremendous toll which carelessness takes every year. Yet the loss goes on. In a letter to H. R. Smith, manager of the National Live Stock Loss Prevention Board at Chicago, Joseph Shine of the Tanners! Hide bureau recently wrote: "Tanners, particularly of native (free of brand) hides, complain seriously of a costly grain side defect, the character of which leads us to believe that it is caused by the use of goads, prod poles, pitchforks, etc., on cattle. This damage appears to be on the increase. Upholstery leather tanners, for example, who use native steer and heavy native cowhides largely, find damage of this character in practically every car they receive, ranging in amount from 1 percent to 15 percent of the hides, with the resulting losses in finished top grain leather of from 50 cents to \$3 per hide ... " (Stock & Dairy Farmer, July.)

World Trade A report which indicated a rapid growth of the nationalist "protective spirit" in leading countries of Report the world was sent to Congress recently by the Federal Trade Commission. It disclosed that in the past four years the United States and 39 foreign countries have built a vast and intricate network of "antidumping" laws across the channels of world trade. The analysis illustrated that the exchange of products between leading nations is conducted today through a maze of international legal technicalities, involving disjointed currencies, duties levied out of spite, and levies designed to protect domestic living conditions. Also cited were laws to protect industries from trusts in foreign countries, "retaliatory" duties and "prejudicial" transportation arrangements. The study noted, however, that there has been some progress toward eliminating friction arising from restrictive measures. (Associated Press.)

Dehydration Norman J. Urquhart, in the last of a series of articles of Products on dehydrating farm crops, in Michigan Farmer (July 16) says in part: "A dehydrator, to become a practical agricultural implement, must handle efficiently the variable conditions of each product. Many machines for drying a known product (cement, sand, sugar beet, salt, synthetic rubber, etc.) are utilized today, but scientific engineering must now create a dryer to handle the many and varied products of agriculture. To accomplish this successfully is the problem facing the manufacturer and farmer. To dehydrate is to remove chemically combined water contained in a compound. Thus, in the process of dehydration, five major problems must be dealt with. First, the control of the moisture in the air that will be used for drying. Second, transmission of heat to the air. Third, the determination of the correct temperature to heat the air so as not to liberate the vitamin and protein values of the food product. Fourth, the volume of air per square foot of drying area. Fifth, the speed at which the heated air should travel in, through, or over the product to be dried."

Grade-Divided "No parkway or freeway has ever been regretted," says an editorial in Engineering News-Record (July 21). "Rela-Highways tively new as a road type, the grade-separated divided-lane highway has met with immediate approval wherever it has been tried -- in New York, Washington, Philadelphia, St. Louis and Connecticut. Against such a background, Los Angeles now embarks on freeway building after trying to meet its traffic problem with wider and wider and even more expensive boulevards on which vehicle flow is controlled by lights. No more promising area for such trunk roads, unless it be Detroit, exists in the country than the Los Angeles metropolitan region. Here 40 percent of California's motor vehicles battle one another daily as they serve 80 percent of the daily transportation requirements of Los Angeles County. Free and continuous flow from the center of the city outward is the objective sought. The new parkway up the Arroyo Seco to Pasadena, described in this issue (First Parkway for Los Angeles), is the first step. As the latest traffic trunk in the country, it should be the best; it deserves study as a current model of arterial road design."

Citrus

The California Citrograph (August) reports that

"Insects "Insects of Citrus and Other Subtropical Fruits" by Prof.

H. J. Quayle, head of the Department of Entomology, Citrus

Experiment Station, Riverside, and professor of entomology, University of

California, "is the best, latest and most authoritative book on the subject of insect pests of citrus fruits written by Prof. Quayle and based on
30 years of actual experience in entomology...He spent three years traveling in countries where citrus fruits are produced...It is generally written
in language which the grower and those who have to do with the control of
pests can clearly understand...In addition to citrus pests, the writer
treats on insect pests of such other subtropical fruits as avocado, Persian
walnut, almond, pecan, fig, olive, date, oriental persimmon, pomegranate
and sweet cherry besides those of the Vinifera grape..."

Rothamsted, the first agricultural experimental sta-Rothamsted tion to be established in the world, is to receive a govern-Research ment grant of about \$70,000 toward extension of its laboratories, says a London report in the Northwestern Miller (July 20). Earl of Feversham, parliamentary secretary to the British Ministry of Agriculture, announced this, saying that the purpose of the state was to endeavor to create conditions which would enable a reasonably efficient producer to secure a reasonable remunerative price. The Earl of Radnor, the chairman of the Lawes Agricultural Trust, said that the value of Rothamsted was all the greater these days, for since 1919 the loss of agricultural land amounted to nearly 2,000,000 acres, of which only 20 percent was due to expansion of towns. The Rothamsted Experimental Station was founded by the late Sir John Lawes, who constituted a trust to insure the continued existence of the station.

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Vol. LXX, No. 19

Section 1

July 28, 1938

PUBLIC WORKS

tion Finance Corporation behind the public works program
last night. Jones and Ickes, Secretary of the Interior
and Public Works Administrator, agreed that wherever possible the RFC would
make loans for public construction and the PWA would conserve its money
exclusively for outright grants. Hitherto, the PWA has been making both
loans and grants. Under the new system it will be possible, officials said,
to undertake more big projects such as roads and bridges than if the PWA
had to furnish all the money itself. (Associated Press.)

AAA TOBACCO Georgia and Florida tobacco growers on the eve of the QUOTA ATTACKED 1938 sales season yesterday attacked constitutionality of the AAA farm marketing quotas and enjoined the penalty taxes, says an Associated Press report. Temporary restraining orders issued by state courts at Valdosta (Georgia) and Lake City (Florida), affecting auctions at seventeen markets opening today, apparently headed the Government's second attempt at control of tobacco growing toward the Supreme Court. A. J. Little, one of the attorneys bringing the suits, said it was estimated Georgia and Florida Growers would have to pay penalties totaling around \$4,500,000 if the act was upheld. He charged quotas for these states were insufficient. The actions, directed against warehousemen, contended that the agricultural adjustment act of 1938, under which marketing quotas were fixed for the Nation's principal crops, was unconstitutional in that "Congress assumes authorities not directly granted by the Constitution."

GRAIN IN The Interstate Commerce Commission decided yesterday

to abolish privileges under which grain in transit has been halted, milled and reshipped under low through rates. Permission to make these stops had been granted by the commission because of what it called "abornmal conditions" in the grain trade. The commission said conditions were more normal and, therefore, the free stops in transit would be done away with after next December 1. At that time, it will put into effect its so-called rate-break adjustment plan, under which grain stopped en route for milling will take a combination of local rates instead of a through rate. (Associated Press.)

"Death by Fortune (August) contains "Death by Tariff," by
Tariff" Raymond Leslie Buell, President, Foreign Policy Association. A note says: "U.S. democratic economy presumes
free trade between the states. But this principle, fundamental to
prosperity, is now being violated: protectionism, turning inward, has
been invoked by state against state, industry against industry. Dr.
Buell, a careful student of protectionism in international trade, here
portrays its disastrous effects upon domestic trade. With special reference to milk, liquor, and the fantastic war between butter and oleomargarine."

Cooperative Farmers! cooperative associations have added over Membership half a million members to their ranks in the past decade. according to a survey of all agricultural cooperatives made by the 12 banks for cooperatives of the Farm Credit Administration. The survey gives figures based on actual membership obtained by fieldmen visiting each cooperative in the country. The records of cooperative associations show 3,270,000 members of marketing and purchasing cooperatives. In 1926 figures obtained by mail by the Cooperative Division of the U. S. Department of Agriculture gave a membership of 2,700,000. would indicate that cooperative associations have been taking on new members at the rate of 57,000 a year, or over half a million in the tenyear period. Most cooperatively minded farmers are members of more than one association; so the increase in membership does not indicate wholly new recruits. It does mean, however, that farmers are taking an more cooperative activities, that is, joining purchasing associations, other types of marketing associations, or becoming members in mutual fire insurance companies and similar farm business cooperatives. (FCA, No.9-30).

Poultry and "With greater government activity along all lines, Egg Situation all of us seem to be more conscious of the services the government has available to help us," says an editorial in the Poultry Tribune (August). "Poultry raisers are particularly interested in a monthly summary mimeograph bulletin, established about a year and a half ago and entitled, the Poultry and Egg Situation. We have found that it contains accurate information dealing with the profit outlook for the poultry industry..."

Proposals report to the state planning board and through it to Governor Kraschel and the next Iowa assembly," says an editorial in Wallaces' Farmer (July 16), "has given Iowa a chance to step out in front of all the other states of the nation...The Iowa committee, with hardly a dissenting voice, approved a six months' notice for termination of a lease, asked for compensation to the tenant for unexhausted improvements and to the landlord for damage, recommended compulsory arbitration in landlord-tenant disputes, and asked that the landlord's lien be limited to one-half of the value of the produce of the farm in the current

year. The committee also recommended (although several members filed minority reports) a tax on land sale profits to stop speculation, urged that a mortgage should not be in default if a borrower turned over one-half the produce of the farm to meet interest and installment on the principal, recommended reform in foreclosure procedure and abolition of deficiency judgments, and asked that a committee be appointed to study the best way of using differential taxation to check concentration of land ownership..."

Farm Opinion J. T. Miller, under the title, "The Farmer Speaks ---A Survey of Farm Thinking", in the Journal of Marketing Surveys (July) says: "To report farm opinion -- comprehensively and accurately, without bias or favor, is the purpose of 'The Farmer Speaks' which made its initial bow in the April issue of Successful Farming ... 'The Farmer Speaks' surveys are being undertaken by Successful Farming because we believe that the news about what people think is moving into a position of first rank importance in the field of journalism. This seems to us to be especially true in considering that great portion of our population who live on farms... The information is secured solely by personal interviews, nationwide in scope and properly allocated and controlled to provide a clear and representative picture of what farmers think in all parts of the country. All field work and tabulations have been done by opinion research corporation of New Jersey. It is our opinion that the exacting requirements of the surveys can best be met by placing the work in the hands of an independent highly specialized field research and tabulating organization ... Calls are distributed according to a careful plan based on a consideration of all important factors of the farm population. Geographical distribution is in agreement with the distribution of farm population, with small states and states in the mountain areas somewhat overweighted in order to make the sample more adequate in each state. Men and women interviews are controlled so that these elements of the cross section are in correct proportion. The same is true of distribution of interviews among owners and tenants, high, middle, and low income farmers, and white and negro farm population ... "

R.R.Pickup

New York Central's action in putting a charge on
freight pickup and delivery service, effective August 15,
is hopefully regarded by truckmen as anticipating similar
action by Pennsylvania and other trunk line roads. New York Central consistently opposed the inauguration of free store-door service several
years ago but was forced into line by competition. Practically all
New England roads, with the exception of the New Haven, and New York
Central subsidiaries elsewhere, have filed tariffs assessing charges of
cents to 10 cents per 100 pounds because of the drain of free service
on revenues. Allowances to shippers performing their own trucking
service have been cancelled. (Business Week, July 23.)

Rural Health "Twenty country doctors, in typically rural Lafayette Co-operation County, Wisconsin, are now well into the second year of a rural health program that is unprecedented in harmony, efficiency and 'carry through'", says Ted Leitzell, author of "It's Cheaper to Live" in Country Gentleman (August). "They started from scratch in a county which for fifteen years had refused the services of a county nurse... The first year of the program (1936) was a demonstration that proved its merit. In 1937, the county board moved to make the health program a permanent feature... Three doctors were made a committee to work out the new program with the county health committee, and to schedule work with the county nurse. The new program carries through where the old left off. Only 12 percent of Lafayette County's school children have ever been vaccinated; only 5 percent have received diphtheria immunization. Under the new program, all children under twenty who have not been vaccinated for five years will receive free vaccination if their parents wish. Every child under twelve who has not received diphtheria immunization may receive free two doses of toxoid. A fund of \$150 will be devoted to dental education and a like sum for iodine tablets to be distributed regularly through the schools. This fall there will be another round of tuberculin testing ... All children who were X-rayed in 1937 and are still in school will be rerayed in 1938, and every year thereafter while they are still in school ... By this continuous observation the doctors are confident they can prevent tuberculosis in the 20 percent of the reactors. When the 1937 program was finished, there was less than \$1500 left in the budget for division among the doctors. From now on, the doctors will fare somewhat better, for now that the plan has met with definite public approval, students will be brought to thirteen community centers for inoculation, vaccination, and testing. With tuberculin and toxoid supplied by the county, the doctors have agreed to do the work, provide the clinic building, X-ray machine and film, and do the entire Each doctor will work only in his own community. job for \$2400. means that the physicians will get reasonable compensation while giving the county its work at a cost of twenty-five cents per contact per pupil, and not much over two dollars per X-ray picture... Tuberculosis costs the state of Wisconsin about \$5,000,000 a year. Yet, according to Doctor Harper (State Health Officer), uniform programs like that of Lafayette County, or any other on similar lines where the public, public health officials and medical profession meet on common ground to combat tuberculosis, will wipe out this great American tragedy in two decades."

Civil Service The Civil Service Commission has sent out circulars

Exemptions to departments and independent establishments asking what
employees they propose to have exempted from President

Roosevelt's order that will bring thousands of workers under civil service.

The commission emphasized that this information must be in hand by

September 24, or it will be taken for granted that no exceptions are desired, and the President will be notified accordingly. (Press.)

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Section 1

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CROP CONTROL

An attack on the Federal Government's crop control

program was made yesterday by the Corn Beltydailies, composed of four publications of the livestock industry. "The production control business travels 'round and 'round and becomes more difficult with each revolution," the dailies asserted. "The government has experimented with cotton, peanuts, tobacco, wheat and corn and hogs. The most marked result has not been the adjustment of production to demand but maladjustment between crops." (New York Times.)

TOBACCO

Brisk sales and slightly better prices than the 1937

OPENINGS

average marked yesterday the opening of the 1938 tobacco
auction season in fifteen cities in Georgia. Prices ranged
as low as 4 cents and as high as 52 cents a pound. Although official
figures were not available, the average return to farmers estimated at
27 cents a pound. Last year the average for the first two days' sales
was 25 cents a pound and the average for the entire 1937 auction was 19.66
cents a pound. Meanwhile, officials of the Georgia Superior Court prepared to impound any taxes collected as penalties on excess tobacco as
provided in the new AAA law, pending hearing on an injunction suit on
August 6. (New York Times.)

CROP PROSPECTS

The actual commencement of the harvesting season.

IN CANADA has been reached in Canada with the prospects still good for generally satisfactory crops in every province of the Dominion, according to the Bank of Montreal in its weekly crop report. The bank reports that in the prairie provinces grain is ripening rapidly. In Manitoba it is expected that harvesting will be general next week. In some districts where crops are not so far advanced, the bank states that general rains are needed to aid filling. (Press.)

GERMAN RAW

"Germany's Four-Year Plan for domestic raw material

production is beginning to gain slightly on her growing

raw material consumption, which gain promises to increase

henceforth, according to a survey issued yesterday by the Business Re
search Institute, "reports Otto D. Tolischus in a Berlin wireless to the

New York Times. "The increase in domestic raw material production so far

this year is approximately 11 percent over the same period last year, which

is somewhat greater than the rate of increase of raw material consumption...

Despite this, Germany must still import approximately 35 percent of the raw

materials she consumes..."

Northwest states."

An article in the August Farmer's Digest by O. A. Idaho Station Fitzgerald, agricultural editor, Idaho Experiment Station Hybrid Grass (reprinted from the Country Gentleman, Copyright 1938) "What would you say if someone told you about a new hybrid perennial grass which produced plants big enough to graze within thirty days after the seed went into almost dry ground in the fall; which was ready to receive livestock as soon as the snow melted in the spring; which produced such a forage growth a binder could barely handle it; which, without additional moisture, started to send out succulent and generous regrowth right after cutting; which hasn't been affected by freezing winters or hot summers; and which has been perfectly satisfied with any kind of soil? At the Idaho Experiment Station, Prof. C. A. Michels, the assistant agronomist, has such a grass. Now in its third generation, it has done all of those things and promises to do more. A few extremely conservative and guarded sentences in the last annual report of the Idaho Station was the first announcement of what may prove to be a ten-strike in grass breeding for range and desert country...Michels' new hybrid is from a cross between Mosida wheat, a winter variety developed some years ago by the Idaho Station, and a coarse native rye grass, Elymus condensatus...Michels has made forty-eight selections from the third generation and is debating whether to pure line some of them or to leave the hybrid mixed. He is confident that it contains at least 100 different types. This year the grass is getting a thorough trial under a wide variety of typical desert, range-land, and cut-over land conditions in Idaho. Over a dozen farmers in selected localities have made quarter-acre plantings. As a result there is no seed for general distribution. The plan of the agronomy department of the Idaho station is to make a small number of larger plantings under diversified conditions rather than to scatter a

H.C.P., in a short article in Country Gentleman Upland Game (August) on "More Upland Game," says the New York State Propagation Conservation Department and State College of Agriculture have issued a bulletin on artificial incubation of upland game birds! eggs. The author says in part: "Taking advantage of what poultry research has taught us, large-scale hatching and brooding of game birds in captivity is shown to be a matter of good breeders, good management and good equipment... The New York announcement gives the results of five years of work. At Cornell University, 17,300 pheasant eggs, 7,300 quail and some 350 grouse eggs, most of the latter collected from the wild, went through incubation. At the Delmar Experimental Game Farm, 8,500 grouse eggs, chiefly from hand-raised breeders, were given their chance to produce...Some important findings are listed. Pheasant eggs need different handling from that under which quail and grouse eggs do best. 'In captivity when pheasants, grouse and quail are encouraged to early and long-continued laying there exists occasionally a brief period at

few ounces of seed among thousands of individuals. The grass also is

being tried out in Australia, Canada and at other stations in the Pacific

the beginning of laying and a relatively longer space near the end in which infertility is of common occurrence. Fertility percentages of pheasant and quail eggs average very high; those of grouse eggs are much lower and they also have varied widely in the few seasons recorded, but it is explained that grouse have not yet been reared in captivity beyond the seventh generation. For those interested in laying records it may be added that female grouse have averaged 11 to 15 eggs; pheasants and quail may average 60 to 80 per breeding pair. The Cornell project was directed by Dr. Alexis L. Romanoff."

G. H. Dacy, in Electricity on the Farm (August) re-Electrocuting Farm Flies ports that in Florida "electric fly traps have proved remarkably successful in the abatement of the fly evil. Thomas and Reasoner, successful Dade County dairymen, who milk as many as 300 grade Guernseys and Jerseys, report that the latest fly-electrocution devices are highly efficient, much superior to the pioneer types of fly catchers which were objectionable because they shorted out too easily. This is the eighth year that these milk producers have yoked electricity for fly-killing. Despite that molasses is a constituent both of the dairy feed and beet pulp which they use, their milking stables and pastures are outstandingly free of horn flies and similar pests. One of the fly traps is located in the spacious feed room which accommodates several carloads of dairy feed. The flies which penetrate to that store-house are attracted to the insect-killer by an electric bulb which is illuminated during the feeding and milking periods. The pesky flies settle on the wires of the trap, lured there by the light, or are electrocuted by venturing too close. The odor of frying flies attracts more of the trespassers which meet similar fate. Dead flies on occasion have been removed by the quart from the vicinity of this efficient and economical fly trap. Outside the milking stable two other electric fly traps are mounted at strategic points where flies tend to congregate... The dairymen also carry the campaign back to the source of origin of many of the flies such as manure accumulations and other refuse. This debris and fertilizer are cleaned up regularly and thoroughly in order to reduce and control the breeding grounds of the flies."

"That the presence of ripening fruit near growing Ripening Fruit Affects Plants plants or cut foliage, such as holly, may cause quick dropping of leaves has been proved in research at Oregon State College by Elmer Hansen and Henry Hartman, horticulturists in the experiment station," says Better Fruit (July). "Common fruits which ripen off the tree, particularly apples and pears, give off considerable quantities of ethylene gas. Previous studies by Hartman and Hansen had shown that the presence of ripening fruit in a storage room would cause green fruit to mature much more rapidly than normal. The effect of this gas in causing defoliation is even more striking, the research men have found. An apple placed in a large glass jar with cut holly will cause the leaves to drop in a few days, while holly placed in a similar jar and treated the same except for the presence of the apple will remain green for weeks or months. These findings provide an answer to previous baffling experiences of commercial growers who display plants in public markets, only to have them turn yellow and drop their leaves... Tests indicate that the gas has little or no effect at temperatures lower than 45 to 50 degrees F."

Machines for "The use of mechanical bait spreaders has proven Poison Bait very effective (in Colorado) in poisoning grasshoppers on farms and ranches, " says S. C. McCampbell, extension entomologist, Colorado State College, in Agricultural Leaders' Digest (July). "The machine is made from the rear of a model T Ford with the drive shaft tipped upward and used to rotate the spreader table and scatter the bait which is placed in a steel drum. The cost is about \$30 per machine. Power is furnished by a car or truck that pulls the spreader over fields at the rate of 10 to 15 miles per hour. Poisoned bait is scattered evenly in a swath 25 to 40 feet wide, and about 30 acres of land can be covered in an hour. The machine was first introduced in the state in 1936 through the entomology project of the Extension Service. Of the 700 machines now in use in the state, the majority have been built by individual farmers, but a large number have been furnished by counties, banks, the Soil Conservation Service, the CCC camps of the Soil Conservation Service, the Land Utilization Division of the Bureau of Agricultural Economics, and the Colorado Department of Vocational Education, for use by farmers. .. "

N.D. Farm

The North Dakota Experiment Station, in cooperation
Labor Study

with the U. S. Department of Agriculture and the North

Dakota Employment Service, will study labor practices and
problems in the harvesting of small grains in North Dakota, Director

Herbert C. Hanson announces. Primary purpose of the study will be improved service to farmers in filling their needs for harvest labor in
future years. Other objectives include analysis of the labor requirements for various types of machinery, with particular attention to the
shift from binders to combines, and of the various sources of labor used
in harvest operations, including the use of transients. Seven counties
have been selected as representative areas to study. They are Bottineau,
Cass, Hettinger, McLean, Stutsman, Walsh and Williams. (Bismarch, N.D.
Tribune, July 20.)

Ohio Wheat "If we can breed a new variety of wheat that will Breeding outyield present varieties in this state only one bushel per acre," stated Dr. A. R. Lamb, in charge of wheat breeding experiments at the Ohio Experiment Station, at the annual Wheat and Clover Day program at the station on June 30, "we would increase the crop of the state nearly two million bushels, and even at present prices that would add better than a million dollars to Ohio farm income." And the fact is that Dr. Lamb and his co-workers have a new variety of wheat that they think will do just that. They have named it the Thorne and it was first released last year. Test plots over the state indicate that it will outyield the Trumbull and Fulhio varieties as much as they do their parent variety, the Fultz. In the wheat nursery and yield test plots at the station are many varieties, crosses and selections of wheat that are continually being tried and tested in an effort to find higher-yielding and more disease-resisting wheats. (Ohio Farmer, July 7.)